

15

No. 91-860-ATX
Status: GRANTED

Title: United States Department of Commerce, et al.,
Appellants
v.
Montana, et al.

Docketed:
November 26, 1991

Court: United States District Court
for the District of Montana

See also:
91-859

Counsel for appellant: Solicitor General

Counsel for appellee: Baker, Elizabeth S., Johnson, James,
Murray, Michael

Entry	Date	Note	Proceedings and Orders
1	Nov 26 1991	G	Statement as to jurisdiction filed.
2	Dec 4 1991		Motion of appellee Montana to affirm filed.
4	Dec 5 1991	G	Motion of appellees for expedited briefing schedule and oral argument filed.
9	Dec 6 1991	X	Brief amicus curiae of Commonwealth of Massachusetts filed.
8	Dec 10 1991	X	Brief of appellee Montana in response to the brief of Massachusetts filed.
5	Dec 11 1991		DISTRIBUTED. January 10, 1992
6	Dec 16 1991		Motion of appellees for expedited briefing schedule and oral argument GRANTED.
7	Dec 16 1991		PROBABLE JURISDICTION NOTED. *****
10	Jan 2 1992		SET FOR ARGUMENT WEDNESDAY, MARCH 4, 1992. (1ST CASE)
11	Jan 15 1992		Brief of appellants United States Department of Commerce, et al. filed.
12	Jan 15 1992		Brief amicus curiae of State of Washington filed.
17	Jan 16 1992	X	Joint appendix filed.
		*	Joint Appendix received in two volumes
13	Jan 21 1992		Record filed.
		*	Original proceedings U. S. District Court for the District of Montana (1 Box)
15	Jan 28 1992		CIRCULATED.
16	Feb 3 1992	D	Motion of Attorney General of Washington for leave to participate in oral argument as amicus curiae, for divided argument and for additional time for oral argument filed.
18	Feb 11 1992	X	Brief amicus curiae of Commonwealth of Massachusetts filed.
20	Feb 11 1992	X	Brief of appellee Montana filed.
22	Feb 11 1992	D	Motion of Attorney General of Commonwealth of Massachusetts for leave to participate in oral argument as amicus curiae, for divided argument and for additional time for oral argument filed.
19	Feb 12 1992		LODGING received from the Commonwealth of Massachusetts consisting of 20 copies of affidavit, etc. and one book.
21	Feb 12 1992		Brief amici curiae of Crow Tribe of Indians, et al. filed.
25	Feb 21 1992	X	Reply brief of appellants United States Department of Commerce, et al. filed.
23	Feb 24 1992		Motion of Attorney General of Washington for leave to participate in oral argument as amicus curiae, for divided argument and for additional time for oral

Entry	Date	Note	Proceedings and Orders
24	Feb 24 1992		argument DENIED. Motion of Attorney General of Commonwealth of Massachusetts for leave to participate in oral argument as amicus curiae, for divided argument and for additional time for oral argument DENIED.
26	Feb 26 1992	*	Record filed. LODGING from Solicitor General(pleadings in Massachusetts v. Mosbacher, et al. - USDC, Massachusetts) 10 copies
27	Mar 4 1992		ARGUED.

91-860

No.

Supreme Court, U.S.
FILED

NOV 26 1991

OFFICE OF THE CLERK

In the Supreme Court of the United States

OCTOBER TERM, 1991

UNITED STATES DEPARTMENT OF COMMERCE, ET AL.,
APPELLANTS

v.

STATE OF MONTANA, ET AL.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA

JURISDICTIONAL STATEMENT

KENNETH W. STARR
Solicitor General

STUART M. GERSON
Assistant Attorney General

JOHN G. ROBERTS, JR.
Deputy Solicitor General

EDWIN S. KNEEDLER
Assistant to the Solicitor General

MICHAEL JAY SINGER

MARK B. STERN

MICHAEL S. RAAB

Attorneys

Department of Justice

Washington, D.C. 20530

(202) 514-2217

QUESTIONS PRESENTED

Article I, Section 2, Clause 3 of the United States Constitution provides that Representatives in the United States House of Representatives "shall be apportioned among the several States which may be included within this Union, according to their respective Numbers." Section 2 of the Fourteenth Amendment reiterates that requirement. The questions presented by this case are:

1. Whether Congress's choice among alternative means of apportioning Representatives that are rationally tied to the respective populations of the States is subject to review by a court.

2. Whether 2 U.S.C. 2a, which provides for apportionment of Representatives on the basis of the mathematical formula known as the "method of equal proportions," satisfies the requirement that Representatives be apportioned among the States "according to their respective Numbers."

II

PARTIES TO THE PROCEEDINGS

The appellants here, who were defendants in the district court, are the United States Department of Commerce; Robert A. Mosbacher, Secretary of Commerce; the Bureau of the Census; and Barbara Everitt Bryant, Director of the Bureau of the Census. Donnal K. Anderson, Clerk of the United States House of Representatives, also was a defendant in the district court and has filed a separate notice of appeal to this Court.

The appellees in this Court, who were the plaintiffs below, are the State of Montana; Stan Stephens, Governor of Montana; Marc Racicot, Attorney General of Montana; Mike Cooney, Secretary of State of Montana; Max Baucus and Conrad Burns, United States Senators from Montana; and Pat Williams and Ron Marlenee, United States Representatives from Montana.

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JURISDICTIONAL STATEMENT

OPINIONS BELOW

The opinion of the three-judge district court (App., *infra*, 1a-34a) and the order of the single judge (App., *infra*, 35a-46a) are not yet reported.

JURISDICTION

The judgment of the three-judge district court (App., *infra*, 47a-48a) was entered on October 18, 1991. The notice of direct appeal (App., *infra*, 49a-51a) was filed on October 24, 1991. The jurisdiction of this Court is invoked under 28 U.S.C. 1253. See pages 25-28, *infra*.

CONSTITUTIONAL AND STATUTORY
PROVISIONS INVOLVED

Article I, Section 2, Clauses 1 through 3, and Section 8, Clause 18 of the United States Constitution; Sections 2 and 5 of the Fourteenth Amendment to the Constitution;

2 U.S.C. 2a; 13 U.S.C. 141(a) and (b); and 28 U.S.C. 1253 and 2284(a) are reproduced at App., *infra*, 54a-59a.

STATEMENT

The district court in this case held unconstitutional the Act of Congress that prescribes the method for apportioning Representatives among the States. 2 U.S.C. 2a(a). That statute was enacted in 1941 to resolve a 150-year-old controversy about the most appropriate formula for apportioning Representatives, and it has governed apportionment of the House of Representatives ever since. The Act mandates that Representatives be apportioned by what is known as the "method of equal proportions," which utilizes a formula based on geometric means—a familiar approach in statistical analysis. That method, and the four alternatives considered at the time (including the "Adams method" and "Dean method" advocated by appellees), are described at pages 5-11, *infra*. Compared to each of those alternatives, the method of equal proportions minimizes the relative differences in a comparison between any two States with respect to both (1) the number of persons represented by a Representative (*i.e.*, the average population of congressional districts), and (2) each person's "share" of a Representative (*i.e.*, the number of a State's Representatives divided by its population).

A. Constitutional, Statutory, And Historical Background

1. Article I of the Constitution provides that "Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers"; "but each State shall have at Least one Representative," and the total "Number of Representatives shall not exceed one for every thirty Thousand" persons. Art. I, § 2, Cl. 3. The "actual Enumeration" of persons in the States must be made every ten years, "in such Manner as they [the

Congress] shall by Law direct." *Ibid.* Section 2 of the Fourteenth Amendment reiterates that "Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State."¹ The Constitution does not expressly specify that it is Congress that shall make the apportionment, but Congress's power to do so "has always been acted upon as irresistibly flowing from the duty positively enjoined by the constitution." *Prigg v. Pennsylvania*, 41 U.S. (16 Pet.) 539, 619 (1842); see Art. I, § 8, Cl. 18; Amend. XIV, § 5. Similarly, because the Constitution does not prescribe the number of Representatives, that number likewise has been set by Congress; it was increased steadily from the 65 initially provided for in the Constitution (Art. I, § 2, Cl. 3) to the current total of 435, which was adopted in 1911.

Pursuant to Article I, Section 2 of the Constitution, Congress has directed the Secretary of Commerce to conduct a census, as of April 1 of 1980 and every tenth year thereafter, "in such form and content as he may determine." 13 U.S.C. 141(a). The tabulations required for apportionment "shall be completed within 9 months after the census date and reported by the Secretary to the President of the United States." 13 U.S.C. 141(b). The President, in turn, must transmit to Congress, during the first week of its next Session, "a statement showing the whole number of persons in each State," as ascertained by the census. 2 U.S.C. 2a(a). The President's statement must also show "the number of Representatives to which each State would be entitled under an apportionment of the then existing number of Representatives by the method known as the method of equal proportions, no

¹ Article I, Section 2 provides that the number of persons "shall be determined by adding to the whole Number of free Persons, including those bound to Service for a Term of Years, and excluding Indians not taxed, three fifths of all other persons." This provision was superseded by Section 2 of the Fourteenth Amendment, except that the latter likewise excludes "Indians not taxed."

State to receive less than one Member." *Ibid.* The apportionment statute further provides that "[e]ach State shall be entitled * * * to the number of Representatives shown in the [President's] statement required by [2 U.S.C. 2a(a)]," and it directs the Clerk of the House of Representatives, within 15 days after receipt of the statement, to "send to the executive of each State a certificate of the number of Representatives to which such State is entitled under this section." 2 U.S.C. 2a(b).²

2. Congress adopted the "method of equal proportions" in 1941 in order to resolve a political controversy, as old as the Constitution itself, regarding the appropriate means of implementing the general constitutional mandate that Representatives be apportioned according to the population of the States. A precise mathematical apportionment of any given number of Representatives would almost invariably result in a whole number of Representatives for each State, plus a fractional remainder.³ The Constitution, however, renders any such precise apportionment impossible, by virtue of its explicit requirement that each State have at least one Representative, and the implicit assumption that each State must be allotted a whole number of Representatives. App., *infra*, 9a, 15a n.4; *id.* at 23a, 24a-25a (O'Scannlain, J., dissenting).⁴

² The Representatives allotted to each State must be elected from single-member districts. 2 U.S.C. 2a(c), 2c.

³ The precise number of Representatives for each State may be calculated by dividing its population by the total population of all the States, and then multiplying the resulting quotient by 435 (the total number of Representatives under current law). Using the population totals from the 1990 census, that calculation yields exact quotas ranging from a high of 52.124 Representatives for California to a low of 0.797 Representatives for Wyoming. Exh. B to Decl. of Lawrence R. Ernst, Assistant Chief, Statistical Research Division, Bureau of the Census (submitted in support of appellants' motion for summary judgment).

⁴ Thus, States do not have fractional Representatives in the House, and two or more States do not share a Representative (*e.g.*, by drawing congressional districts to cross state lines).

Congress therefore must devise some way of addressing the phenomenon of fractional remainders when it apportions Representatives.

a. In the decades following adoption of the Constitution, Congress enacted a new apportionment act after each decennial census. In those acts, Congress allocated Representatives by selecting a uniform (albeit arbitrary) number of persons to be represented by each Representative, and then dividing that figure into each State's population. Through the 1832 apportionment, any fractional remainders were simply disregarded.⁵ This method is known as the "Jefferson method" (because it was endorsed by Thomas Jefferson at the time of the first apportionment in 1792), or the "method of greatest divisors." M. Balinski & H.P. Young, *Fair Representation* 10-22 (1982); L. Schmeckebier, *Congressional Apportionment* 73, 107-114 (1941); see page 9, *infra*. In 1842, Congress again apportioned Representatives based on a specified ratio of persons per Representative; but for the first time it also took account of some fractional remainders by allocating "one additional representative for each State having a fraction greater than one moiety [one half] of the said ratio." Act of June 25, 1842, 5 Stat. 491. This method is known as the "Webster method" (because it was endorsed by Senator Daniel Webster), or the "method of major fractions." *Fair Representation* at 28-35; *Congressional Apportionment* at 112-113.

These early apportionment acts (like later ones) generated extended debates about the most appropriate way of apportioning Representatives. The debates were often characterized by disputes between large and small States, between North and South, between political factions—and, of course, between States that stood to gain or lose

⁵ Act of Apr. 14, 1792, 1 Stat. 253 (one Representative per 33,000 persons); Act of June 14, 1802, 2 Stat. 128 (33,000); Act of Dec. 21, 1811, 2 Stat. 669 (35,000); Act of Mar. 7, 1822, 3 Stat. 651 (40,000); Act of May 22, 1832, 4 Stat. 516 (47,700).

under various alternative methods of apportionment, in light of the most recent decennial census.⁶

b. In the Census Act of 1850, Congress adopted a new apportionment method, known as the "Vinton method," which allocated additional Representatives to the States having the largest fractional remainders. Act of May 23, 1850, § 25, 9 Stat. 432-433. The Vinton method formally remained on the statute books into the twentieth century. But Congress soon became disenchanted with it because it gave rise to what became known as the "Alabama paradox," a mathematical quirk that can result in a State's actually receiving *fewer* Representatives for a given population if the nationwide total number of Representatives is *increased*. Congress therefore effectively abandoned the Vinton method by allocating Representatives beyond the number that method would have yielded for certain States in 1862 and 1872,⁷ and by selecting a

⁶ For example, the Apportionment Act of 1792, which employed the Jefferson method, favored Virginia and other large States. It was preceded by passage of another bill that was the subject of the first Presidential veto. The vetoed bill, endorsed by Alexander Hamilton, was thought to favor northern States; it apportioned Representatives according to the whole number of Representatives to which each State was entitled under a specified ratio of persons per Representative, plus an additional Representative for the States having the largest fractional remainders. *Fair Representation* at 10-22. Although it was not adopted in 1792, that approach (known as the "Vinton method" or "Hamilton/Vinton method") was enacted by Congress in 1852, only to be abandoned some years later. See pages 6-7, *infra*. In 1832, John Quincy Adams, then the Speaker of the House, proposed yet another method (the "Adams method" or the "method of smallest divisors"), under which every State would receive an additional Representative for its fractional remainder (no matter how small). The Adams method, which favored New England States in 1832, was the mirror image of the Jefferson method, which disregarded all fractional remainders (no matter how large) and favored southern States in that year. *Fair Representation* at 27-29.

⁷ See Act of Mar. 4, 1862, 12 Stat. 353; Act of Feb. 2, 1872, 12 Stat. 28; Act of May 30, 1872, 17 Stat. 192.

total number of Representatives following the 1880 and 1890 censuses that would produce the same apportionment under both the Vinton and Webster methods. *Fair Representation* at 37-42; *Congressional Apportionment* at 113-120; Celler, *Congressional Apportionment—Past, Present, and Future*, 17 Law & Contemp. Probs. 268, 270-271 (1953). In 1911, Congress formally abandoned the Vinton method in favor of the Webster method, and fixed the number of Representatives at the current total of 435. Act of Aug. 8, 1911, 37 Stat. 13.⁸

c. Following the 1920 census, Congress failed for the first time to pass any apportionment act, because of concerns about the accuracy of the census, dramatic population shifts, and dissatisfaction with the Webster method. After the matter remained unresolved throughout most of the 1920s—and to avoid future deadlocks—the Speaker of the House requested the National Academy of Sciences (NAS) to review various methods of apportionment. The NAS appointed a committee of four prominent mathematicians for that purpose. *Fair Representation* at 51-55; *Congressional Apportionment* at 120-121; Celler, 17 Law & Contemp. Probs. at 271; App., *infra*, 21a (O'Scannlain, J. dissenting).

The NAS committee considered five methods of apportionment: (1) equal proportions (also known as the Hill method), (2) harmonic means (also known as the Dean method), (3) major fractions (Webster), (4) smallest divisors (Adams), and (5) greatest divisors (Jefferson).⁹

⁸ The 1911 Act fixed the total number of Representatives at 433 but provided that additional Representatives would be allocated to Arizona and New Mexico if (as happened the next year) they were admitted to the Union. § 2, 37 Stat. 14. The number of Representatives was temporarily increased to 437 following the admission of Alaska and Hawaii in 1959, but it reverted to 435 following the 1960 census. See Alaska Statehood Act § 9, 72 Stat. 345; Hawaii Statehood Act, § 8, 73 Stat. 8.

⁹ The NAS committee did not consider the Vinton method, because it had been discredited by its propensity to create the "Alabama paradox." *Fair Representation* at 55.

Although these methods may be described in various ways as a practical matter, they may also be expressed mathematically in a form that permits comparison: Each State is first allotted one Representative, as required by the Constitution. A series of priority values is then calculated for each State, from which its entitlement to a second and subsequent Representatives can be determined. The priority values for all States are then arranged in sequence from highest to lowest, to indicate which State should receive the 51st Representative, which State the 52d, and so on through the 435th Representative. Under all of the methods, the formula for establishing each State's priorities has as its numerator the population of the State. The methods differ only with respect to the denominator.

For example, under the method of equal proportions, the priority values for each State are calculated by dividing its population (SP) by the *geometric* mean of the number of Representatives the State has already received in the sequential allocation ("n") and the next integer ("n+1"). The resulting formula is:

$$\frac{SP}{\sqrt{n(n+1)}}$$

Under the major fractions (Webster) method, a State's priority values are calculated by dividing its population by the *arithmetic* mean between successive Representatives in the allocation, as depicted by the formula:

$$\frac{SP}{n+\frac{1}{2}}$$

Under the harmonic means (Dean) method, urged by appellees below, the State's population is divided by the *harmonic* mean between successive Representatives in the allocation, as depicted by the formula:

$$\frac{SP}{\frac{2n(n+1)}{n+(n+1)}}$$

The smallest divisors (Adams) method, also urged by appellees below, was designed in theory to round up all fractional remainders, and is depicted by the formula:

$$\frac{SP}{n}$$

The greatest divisors (Jefferson) method, by contrast, was designed in theory to round down all fractional remainders, and is depicted by the formula:

$$\frac{SP}{n+1}$$

See *Fair Representation* at 14, 22-23, 33-34, 41, 50; App., *infra*, 27a-28a (O'Scannlain, J., dissenting).

In evaluating these five methods, the NAS committee utilized four measures of equity:

1) *Persons per Representative* (average district size)—the State's population divided by its number of Representatives.

2) *Each person's share of a Representative*—the number of a State's Representatives divided by its population.

3) *Representation surplus*—the difference between (i) the number of Representatives of an over-represented State, and (ii) the number of Representatives of an under-represented State multiplied by the population of the over-represented State divided by the population of the under-represented State.

4) *Representation deficiency*—the difference between (i) the number of Representatives of an under-represented State, and (ii) the number of Representatives of an over-represented State multiplied by the population of the under-represented State divided by the population of the over-represented State.

The NAS committee concluded that four of the apportionment methods it considered best achieved one of these measures of equity in absolute terms. Thus, in a comparison between any two States, the harmonic means (Dean) method minimizes the absolute difference between the number of persons per representative; the

major fractions (Webster) method minimizes the absolute difference between each person's share of a representative; the smallest divisors (Adams) method minimizes the absolute representation surplus; and the greatest divisors (Jefferson) method minimizes the absolute representation deficiency. However, the equal proportions method minimizes the *relative* (percentage) variation of both the number of persons per Representative and each person's share of a Representative. For this reason, and because "it occupies mathematically a neutral position with respect to emphasis on larger and smaller states," the NAS committee recommended adoption of the method of equal proportions. G.A. Bliss, *et al.*, *Report to the President of the National Academy of Sciences* 3 (1929) (reproduced in H.R. Rep. No. 1314, 91st Cong., 2d Sess. 21 (1970)); see Ernst Decl. 4-7.

Following receipt of the NAS Report, Congress enacted permanent apportionment legislation as part of the Census Act of 1929. Act of June 18, 1929, § 22, 46 Stat. 26-27. The 1929 Act directed the President, following every decennial census, to report to Congress the number of Representatives to which each State would be entitled under the method of equal proportions, the method of major fractions, and the method used in the preceding apportionment; if Congress did not enact an apportionment law before the end of the Session, each State would be entitled to the number of Representatives it would receive under the method used in the prior apportionment. § 22, 46 Stat. 26-27. When Congress did not enact an apportionment law following the 1930 census, Representatives were apportioned according to the method of major fractions (which was used in 1911), although the method of equal proportions would have resulted in the same apportionment. *Congressional Apportionment* at 120-124. Finally, in 1941, Congress amended the 1929 Act to provide that Representatives are to be automatically apportioned under the method of equal proportions, in the manner now prescribed by 2 U.S.C. 2a. Act of Nov. 15, 1941, 55 Stat. 762. The method of equal proportions has

been the basis for all reapportionments ever since. *Fair Representation* at 58.

d. Although Congress has not revised the apportionment formula since 1941, it has revisited the issue on several occasions. Most notably, in 1948, Congress requested the NAS to re-examine the various apportionment methods. In response, "[t]hree of the most distinguished mathematicians of the day" concurred with the 1929 NAS report in endorsing the method of equal proportions. *Fair Representation* at 78. They found not only that the equal proportions method minimizes the relative difference between persons per Representative and Representatives per person in pair-wise comparisons of the States, but also that it is superior to each alternative under three out of four measures of absolute and relative equity. See M. Morse, *et al.*, *Report to the President of the National Academy of Sciences* 4 (1948).¹⁰

B. The Proceedings In This Case

1. Following the 1990 census, the President, on January 3, 1991, transmitted to Congress the statement required by 2 U.S.C. 2a(a). Based on the 1990 census, Montana's percentage of the national population translated into 1.404 Representatives out of the fixed total of 435. Under the method of equal proportions, Montana was entitled to one Representative, a loss of one.

On May 22, 1991, appellees (the State of Montana and its Governor, Attorney General, Secretary of State, Senators, and Representatives) commenced this suit for declaratory and injunctive relief against the Department and

¹⁰ In 1970, the responsible House Committee reported that the equal proportions method best implements the Constitution, noting that it was adopted in 1941 "after a century and a half of experimentation, studies, and constitutional debates." H.R. Rep. No. 1314, 91st Cong., 2d Sess. 5-6 (1970). In 1981, the House considered a bill that would have reinstituted the Vinton method. *Census Activities and the Decennial Census: Hearing on H.R. 1996 Before the Subcomm. on Census and Population of the House Comm. on Post Office and Civil Service*, 97th Cong., 1st Sess. (1981).

Secretary of Commerce, the Bureau of the Census and its Director, and the Clerk of the House of Representatives. Appellees alleged that use of the equal proportions method to apportion Representatives contravenes Article I, Section 2 of the Constitution, and they urged adoption of the harmonic means (Dean) method or the smallest divisors (Adams) method, neither of which had ever been previously utilized. Under the Dean method, Montana would receive two Representatives rather than one, while Washington would receive eight rather than nine; no other State's allocation would be affected. The Adams method, however, would alter the allocations of 18 States. Ernst Decl., Exh. B.

2. On October 18, 1991, a divided three-judge district court declared 2 U.S.C. 2a "unconstitutional and void" and permanently enjoined the defendants "and their agents * * * from effecting reapportionment of the United States House of Representatives under [2 U.S.C. 2a]." App., *infra*, 35a-36a; *id.* at 1a-34a.¹¹

a. The court recognized that "[n]o state has heretofore turned to the judicial branch to challenge the method employed by Congress to apportion representatives among the several states." App., *infra*, 9a. It also recognized that strict application of the "one person, one vote" principle is a "mathematical impossibility" in this setting, "because Congress must adhere to existing state boundaries and each state must have at least one representative." *Ibid.* But the court concluded that that principle nevertheless should govern to the extent practicable, and

¹¹ As an initial matter, the three-judge court held that it was properly convened under 28 U.S.C. 2284, and it rejected appellants' contentions that the case presents a nonjusticiable political question and that appellees lack standing. App., *infra*, 4a-5a. On the latter point, the court concluded that the alleged injury to appellees' voting power can be traced to use of the equal proportions method and that "there is a substantial likelihood that the injury will be redressed if Congress is forced to adopt a constitutional method." *Id.* at 5a. Judge O'Scannlain agreed with the majority on these threshold issues. *Id.* at 20a. Judge Lovell previously had denied appellants' motion to dismiss on standing and political question grounds. *Id.* at 35a-46a.

that the reasoning of *Wesberry v. Sanders*, 376 U.S. 1 (1964), and *Karcher v. Daggett*, 462 U.S. 725 (1983)—which concerned a state legislature's drawing of congressional districts within a State—should also apply to Congress's apportionment of Representatives among the States. App., *infra*, 9a-12a. In the lower court's view, if the party challenging such an apportionment "establishes 'that the population differences were not the result of a good-faith effort to achieve equality,' the burden then shifts to the defendant to prove 'that each significant variance between districts was necessary to achieve some legitimate goal.'" *Id.* at 13a (quoting *Karcher*, 462 U.S. at 730-731).

Applying those principles here, the court agreed with appellees that Congress must adopt the apportionment method that minimizes the "absolute difference between numbers of persons per representative" and the absolute variance from the "ideal district size" (the nationwide average district size), rather than the "relative difference between the number of persons per representative and the relative difference between each person's share of a representative" (as the equal proportions method does). App., *infra*, 13a-15a. Finding that the Dean method satisfies those standards, the court concluded that appellees had carried their initial burden of showing that a method other than equal proportions would "more closely meet" what it regarded as "the constitutional mandate of absolute population equality among districts." *Id.* at 15a.¹²

The court next held that appellants had not carried their resulting burden of affirmatively justifying the equal proportions method in these circumstances, App.,

¹² The court rejected appellees' reliance on the Adams method, because, as the dissent explained, it results in a "quota violation" for four States. App., *infra*, 15a n.5—i.e., "it assigns a number of representatives to a state that is neither of the two closest whole numbers to that state's exact, unrounded share of representation," *id.* at 28a (O'Scannlain, J., dissenting). For example, although California's exact share of Representatives under the 1990 census is 52.124, the Adams method allocates only 50 Representatives to California. *Ibid.*

infra, 15a-19a, expressing the view that it would be "difficult, if not impossible, to do so." *Id.* at 17a. Thus, the court discounted Congress's judgment that relative difference is a better measure of equity than absolute difference, on the ground that it was made "without benefit" of *Wesberry*. *Id.* at 16a.¹³ And it rejected appellants' contention that the equal proportions method is justified by mathematically demonstrable considerations of equity and fairness, observing that apportionment is not governed by "subjective mathematical or equitable concerns," and that "[t]he Constitution mandates apportionment 'among the several States . . . according to their respective Numbers,' not 'according to their respective Numbers and whatever other considerations Congress or its mathematicians may deem appropriate at any given time.'" *Id.* at 17a.

Finally, the court held that Congress had not made a "good faith effort" to achieve equal representation for equal numbers of people, "because the reapportionment process was automatic, and Congress, in its role as law and policy maker, had no part in the process." App., *infra*, 18a. In the court's view, it would not be an "undue burden" for Congress, "once every decade, [to] apply various accepted statistical methods to the census results and determine which method best meets the Constitutional mandate for population equality among the districts." *Id.* at 18a-19a.¹⁴

¹³ The court also discounted Congress's reapportionment efforts on the ground that they "have been political in nature, involving compromises among the states." App., *infra*, 16a-17a.

¹⁴ The appellee Members of Congress also alleged that 2 U.S.C. 2a is unconstitutional because its self-executing feature deprived them of the right to vote on an apportionment act after the 1990 census. The court held that the congressional appellees have standing to press that claim, App., *infra*, 5a, but did not resolve the claim on the merits because it held 2 U.S.C. 2a(a) unconstitutional for the reasons discussed in the text. App., *infra*, 18a n.9, 19a. Judge O'Scannlain agreed with the majority that the congressional appellees have standing to raise this claim, but he believed that it presents a nonjusticiable political question because it concerns the

b. Circuit Judge O'Scannlain dissented from the majority's holding that 2 U.S.C. 2a is unconstitutional. App., *infra*, 20a-34a. Judge O'Scannlain pointed out that "the Framers were aware that the scheme they were creating would lead to the fractional interest problem," yet "did not include in the Constitution a specific mathematical formula to address" it. *Id.* at 25a. In his view, appellees had failed to carry their burden of showing that the population differences under the formula Congress chose are avoidable, and that they result from a lack of good faith effort by Congress to achieve population equity in the context of the constitutional provisions requiring each State to have at least one Representative and barring congressional districts that straddle state lines. *Id.* at 26a. Because of these restrictions, Judge O'Scannlain reasoned, the standard of "precise numerical equality" announced in *Wesberry* and *Karcher* is "impossible to apply here." *Id.* at 26a-27a. "Indeed," he continued, "application of any of the apportionment formulae before [the] court results in congressional district populations varying by hundreds of thousands of people between states." *Id.* at 27a. Thus, unlike intrastate redistricting, which involves the straightforward question of whether districts have the same population, apportionment among the States entails "the more complex task of evaluating the relative merits of plans which, by necessity, all fall far short of population equality." *Ibid.*

Judge O'Scannlain also disagreed with the majority's conclusion that the Dean method is statistically superior to the equal proportions method. He first noted that

internal organization and processes of Congress. *Id.* at 20a & n.1. We disagree with the district court that Members of Congress have standing to present such a claim (an issue similar to that raised but not decided in *Burke v. Barnes*, 479 U.S. 361, 362-363 (1986)), and we share Judge O'Scannlain's broader concerns about the justiciability of the claim here. Although these issues are not raised on this appeal at the present time, they would be presented if the congressional appellees urged this claim as an alternative ground for affirmance or sought a remand to allow the district court to consider it.

under the equal proportions method, "Montana's [single] congressional district is 48.0% larger than Washington's average district," but that under the Dean method, which would require the transfer of a House seat from Washington to Montana, Washington's districts would become 52.1% larger than Montana's. App., *infra*, 29a. Next, Judge O'Scanlain pointed out that the equal proportions method performs better even under the majority's preferred test of "absolute difference from the ideal district," because in both Montana and Washington, the aggregate deviation of all districts from the ideal district size is smaller under the equal proportions method than under the Dean method. *Ibid.* Finally, Judge O'Scanlain noted that although the Dean method results in a narrower absolute difference between the single smallest district and single largest district in the Nation, "[w]hen all 435 districts are considered, the [equal proportions] method has the *least absolute population variance* from the ideal district size." *Id.* at 30a (citing Ernst Decl. 13).

THE QUESTION IS SUBSTANTIAL

The district court has held unconstitutional the Act of Congress that establishes a permanent formula for apportioning Representatives among the States following each decennial census. 2 U.S.C. 2a. Congress enacted that provision in 1941 after a century and a half of experimentation, studies, and debates regarding the most appropriate means of giving content to the general declaration in Article I, Section 2, Clause 3 of the Constitution that Representatives "shall be apportioned among the several States * * * according to their respective Numbers." The formula Congress chose—the method of equal proportions—was twice endorsed by a committee of experts who were charged with studying the apportionment question from a mathematical perspective, and it has produced a fair reapportionment of the House of Representatives following each decennial census since 1941, including this year.

The district court has now cast aside Congress's considered judgment, finding another method of apportion-

ment preferable under the single and inflexible test the court believed should control the implementation of Article I, Section 2. That ruling is unprecedented, for as the district court recognized, "[n]o state has heretofore turned to the judicial branch to challenge the method employed by Congress to apportion representatives among the several states." App., *infra*, 9a. The ruling below also is clearly wrong. The method of equal proportions unquestionably apportions Representatives among the States "according to their respective Numbers," which is all Article I, Section 2 requires. Nothing in that general phrase suggests that a court may second-guess Congress's rational choice among methods of apportionment tied to the population of the States, much less that the Constitution mandates use of the particular mathematical formula that appellees and the district court endorse.

The constitutional question presented by this case is one of paramount public importance regarding the structure of the Government. It warrants prompt resolution by this Court, because state legislatures are now in the process of redrawing congressional districts in reliance on the apportionment of Representatives made pursuant to 2 U.S.C. 2a, and because that apportionment also determines the number of Presidential electors to which the States will be entitled in the 1992 election.

1. a. The text of the Constitution refutes the district court's holding that Congress's power to select a means of apportioning Representatives among the States is strictly circumscribed, and that 2 U.S.C. 2a is invalid for that reason. The Constitution confers broad discretion on Congress in this respect and permits only the narrowest scope of judicial review.

Article I, Section 2, Clause 3 provides that Representatives shall be apportioned among the several States * * * according to their respective Numbers." See also Amend. XIV, § 2. Although the Constitution does not expressly provide that the responsibility for making the apportionment resides in Congress, its power to do so "has always been acted upon as irresistibly flowing from the duty posi-

tively enjoined by the Constitution." *Prigg v. Pennsylvania*, 41 U.S. (16 Pet.) at 619. Because the constitutional text furnishes no set formula for Congress to follow, the natural inference is that Congress may exercise the full measure of power vested in it by the Necessary and Proper Clause for "carrying into Execution" all powers vested by the Constitution in the Government of the United States. Art. I, § 8, Cl. 18; see *M'Culloch v. Maryland*, 17 U.S. (4 Wheat.) 316, 420-421 (1819). Thus, the authority to apportion Representatives is plenary, *Buckley v. Valeo*, 424 U.S. 1, 90, 132 (1976), and Congress may "select[] the policy which in its judgment best effectuates the constitutional aim." *Graham v. John Deere Co.*, 383 U.S. 1, 6 (1966). See also Amend. XIV, § 5.

It is significant as well that apportionment is integrally related to Congress's power to establish the total number of Representatives. The Constitution contains no restrictions on Congress's determination of a suitable size for the House of Representatives (beyond the requirements that each State have at least one Representative and that the total not exceed one for every 30,000 persons), and the history of the apportionment statutes discussed above shows that the number of Representatives has been reached through political compromise, typically in light of its impact on reapportionment. See pages 5-7, *supra*.¹⁵ The fact that a question so basic to the structure of the Government as the size of the House of Representatives is left to the judgment of Congress strongly reinforces the conclusion that Congress likewise has broad discretion in apportioning whatever number of Representatives it chooses, so long as the allocation is reasonably tied to the population of the States.

¹⁵ See also *The Federalist*, No. 58 (New American Lib. Ed. 1961), at 358:

The large States * * * will have nothing to do but to make reapportionments and augmentations mutually conditions of each other; and the senators from all the most growing States will be bound to contend for the latter, by the interest which their States will feel in the former.

This conclusion is still further reinforced by the fact that Article I, Section 2, Clause 3—by providing that the decennial census shall be made "in such Manner as they [the Congress] shall by Law direct"—commits the compilation of the data on which the apportionment is based to Congress's discretion.¹⁶ Finally, the Constitution provides that each House is the judge of the election of its Members, Art. I, § 5, Cl. 1, which presents a political question beyond the jurisdiction of any court to resolve. *Roudebush v. Hartke*, 405 U.S. 15, 19 (1972).

In light of the Constitution's commitment of these subjects relating to the composition of the House of Representatives to the political Branches, a judicial decree striking down Congress's apportionment of Representatives is extraordinary. We do not argue that *all* matters concerning the apportionment of Representatives among the States present nonjusticiable political questions. For example, we may assume that if an Act of Congress apportioning Representatives was plainly contrary to an explicit textual limitation—*e.g.*, if no Representatives were assigned to a particular State, or if an apportionment entirely disregarded State populations—a court would not be barred from so ruling and granting appropriate relief, in a case that was otherwise properly before it.¹⁷ But we do submit that the separation of powers on

¹⁶ See *Tucker v. Department of Commerce*, 135 F.R.D. 175 (N.D. Ill. 1991) (whether to adjust census for undercount presents nonjusticiable political question), appeal pending, No. 91-2051 (7th Cir.); but see *Carey v. Klutznick*, 637 F.2d 834 (2d Cir. 1980) (adjustment claim justiciable), stay granted, 449 U.S. 1068 (1980), followed on subsequent appeal, 653 F.2d 732, 737 (2d Cir. 1981); *City of New York v. United States Dep't of Commerce*, 713 F. Supp. 48, 53-54 (E.D.N.Y. 1989) (adjustment claim reviewable under arbitrary and capricious standard of Administrative Procedure Act).

¹⁷ Compare *Powell v. McCormack*, 395 U.S. 486 (1969) (deciding that the qualifications of Representatives expressly set forth in Article I, Section 5, are exclusive).

which the political question doctrine rests, *Baker v. Carr*, 369 U.S. 186, 217 (1962), bars a court from setting aside Congress's selection of a particular method of apportionment that is not demonstrably contrary to such an explicit textual limitation on its discretion. *Coleman v. Miller*, 397 U.S. 433, 453-456 (1939); *United States v. Sprague*, 282 U.S. 716, 732 (1931); *Goldwater v. Carter*, 444 U.S. 996, 1003 (1979) (Rehnquist, J., concurring).

Here, the method of equal proportions mandated by 2 U.S.C. 2a is not demonstrably contrary to the express terms of Article I, Section 2. To the contrary, it unquestionably produces an apportionment of Representatives among the several States "according to their respective Numbers." As we have explained at pages 8-9, *supra*, each State's priorities under the equal proportions method are based on a formula in which the State's population is the numerator (and the denominator is the geometric mean between the number of Representatives the State has already received in the allocation and the next highest number). Furthermore, as Judge O'Scannlain pointed out, in every apportionment since the method of equal proportions was adopted in 1941, each State has been assigned one of the two whole numbers of Representatives closest to that State's exact, unrounded share. App., *infra*, 29a. Indeed, this year, the equal proportions method allocated to both Montana and Washington the closest whole number of Representatives: Montana's exact share is 1.404, and it received one Representative, while Washington's exact share is 8.538, and it received nine Representatives. Ernst Decl., Exh. B. Although the equal proportions method does not always round a State's fractional remainder up or down to the closest whole number in this manner, there is no textual basis whatever for appellees' and the district court's belief that Article I, Section 2 requires the opposite result here—i.e., that Montana rather than Washington must receive an additional Representative this year, even though Washington has a higher fractional remainder.

b. The other apportionment methods that were studied by the NAS committees and were available to Congress in 1941 also apportion Representatives according to a formula in which the population of the State is the numerator. See pages 8-11, *supra*. Accordingly, we may assume for present purposes that those alternative methods also satisfy the general standard of Article I, Section 2, Clause 3 that Representatives be apportioned among the States "according to their respective Numbers." Congress in fact used several other methods in the past. Prior to 1842, under the Jefferson method, Congress simply disregarded fractional remainders. In 1842 and on several other occasions, Congress used the Webster method, which rounded fractional remainders to the nearest whole number. And in 1852 and several subsequent decades, Congress used the Vinton method, which allocated additional Representatives to the States having the highest fractional remainders. See pages 5-7, *supra*. But as Congress itself obviously concluded over the decades, nothing in Article I, Section 2, Clause 3 requires it to adopt any one of these alternatives (or the never-used Dean method), or to reject the equal proportions method it ultimately settled upon; there is, in other words, a "lack of judicially discoverable and manageable standards" on the question. *Baker v. Carr*, 369 U.S. at 217.

The district court nevertheless held that the Constitution requires Congress to enact an apportionment that comports with the single and inflexible standard of equity that it believed was appropriate—namely, one that minimizes the absolute difference in the size of the largest congressional district and the smallest congressional district in the Nation. But as between any two States, the equal proportions method minimizes the *relative* (percentage) difference between the number of persons per Representative and the number of Representatives per person. See page 10, *supra*. Moreover, as Judge O'Scannlain observed, the equal proportions method also minimizes the total departure from the ideal (nationwide average) district

size. App., *infra*, 29a-30a.¹⁸ Other apportionment methods considered by the NAS committee in 1929 and available to Congress would satisfy still other measures of equity. See pages 9-10, *supra*. The Constitution, however, does not identify any one of those measures of equity as controlling; it instead commits that policy determination to Congress's discretion. Thus, judicial review of Congress's selection from among available apportionment methods that are reasonably tied to the population of the States is barred because of "the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion." *Baker v. Carr*, 369 U.S. at 217.

c. Contrary to the district court's reasoning, *Westberry v. Sanders* does not suggest that the method of equal proportions is unconstitutional. *Wesberry* and its progeny hold that a state legislature, in drawing congressional districts within a State, must achieve the standard of one person, one vote as nearly as practicable. 376 U.S. at 7-8; accord *Karcher*, 462 U.S. at 730-731. But *Wesberry* rests on *Clause 1* of Article I, Section 2, which provides that Representatives shall be chosen "by the People of the several States," 376 U.S. at 7-8, not *Clause 3*, at issue here, which addresses apportionment among the States. Moreover, unlike drawing congressional districts within a State, for which near perfect equality of representation for equal numbers of people is attainable, apportionment of Representatives among the States under *any* available method will inevitably result in differences of several hundred thousand in the size of congressional districts.

¹⁸ Under the equal proportions method, the population of Montana's single district (803,655) is 231,189 persons larger than the ideal district size (572,466), while under the Dean method, Montana would have two districts having a total deviation of 341,276 from the ideal district size. Correspondingly, under the equal proportions method, Washington has nine districts with a total deviation of 264,249 from the ideal district size, while the Dean method would result in a total deviation of 308,216.

Because such differences are intrinsic to the exercise of Congress's plenary power to implement Article I, Section 2, Clause 3, variations in the amounts of those differences under various apportionment formulae do not violate that Clause, so long as the resulting apportionment of Representatives among the States is "according to their respective Numbers."

d. Finally, the district court plainly erred in holding that Congress did not make a "good faith effort" to accomplish an appropriate apportionment because reapportionment under 2 U.S.C. 2a occurs on the basis of calculations by Executive Branch officials in accordance with the statutory formula in 2 U.S.C. 2a. See App., *infra*, 18a-19a. As Judge O'Scannlain observed, there is "no hint" in Article I, Section 2 that "Congress must reexamine every ten years the formula it uses to address the fractional interest problem," and 2 U.S.C. 2a does not in any event prevent such a reexamination. App., *infra*, 32a-34a. Moreover, the existence of a fixed reapportionment formula in 2 U.S.C. 2a serves to eliminate the bitter controversy and self-interested apportionment proposals that inevitably resulted prior to 1941, when Congress enacted an apportionment on an ad hoc basis only after the results of the most recent decennial census were already known. Thus, 2 U.S.C. 2a(a) produces stability and promotes public confidence that representation in the House is determined in a fair and neutral manner and that the perceived advantages and disadvantages to particular States following any one census will, in the long run, even out. Congress reasonably could agree with Justice Story that "the rule [of apportionment] ought to be such, that it shall always work the same way in regard to all the states, and be as little open to cavil, or controversy, or abuse, as possible." 2 J. Story, *Commentaries on the Constitution* § 676 (1833) (quoted in App., *infra*, 26a (O'Scannlain, J., dissenting)).

2. The constitutional question presented by this case is one of paramount importance concerning the structure of

the Government, and it warrants prompt resolution by this Court. The state legislatures, in reliance on the apportionment of Representatives made by 2 U.S.C. 2a, are now in the midst of (or have already completed) the process of redrawing congressional districts for the 1992 elections. The apportionment of Representatives also determines the number of electors to which each State will be entitled in the 1992 Presidential election. U.S. Const., Art. II, § 1, Cl. 2 (each State is entitled to a number of electors equal to the number of Senators and Representatives to which it is entitled); 3 U.S.C. 3 (same). Although the district court's judgment does not actually order a different allocation of Representatives among the States for the next Congress or mandate that the Dean method or any other particular apportionment method be used in place of the method of equal proportions (see note 19, *infra*), it declares the existing method unconstitutional and apparently contemplates that Congress will enact a new law to provide for a different apportionment.¹⁹ The Court should promptly remove this cloud

¹⁹ In addition to declaring 2 U.S.C. 2a unconstitutional, the district court's judgment permanently enjoins the Secretary of Commerce, Director of the Bureau of the Census, and the Clerk of the House of Representatives from "effecting reapportionment of the United States House of Representatives under the provisions of that said statute." App., *infra*, 48a. However, the Secretary, Director, and Clerk have already completed all of the actions required of them by 2 U.S.C. 2a for the current reapportionment, according to the method of equal proportions. The States are now free to conduct elections for the number of Representatives they have been allocated under that method. The injunction against the Secretary, Director, and Clerk therefore has no impact this year.

The Declaratory Judgment Act would permit appellees to seek "[f]urther necessary or proper relief" based on the declaratory judgment "against any adverse party whose rights have been determined by such judgment." 28 U.S.C. 2202. But it is not clear what relief they might seek. Congress has not expressly given the courts any role in apportionment matters, much less authorized a particular form of relief. Cf. *Luther v. Borden*, 48 U.S. (7 How.) 1, 42-43 (1849). Moreover, under 2 U.S.C. 2a, the actions of the

over the existing apportionment by setting aside the judgment below.

Furthermore, another challenge to 2 U.S.C. 2a has been brought by the Commonwealth of Massachusetts, which advocates use of the Webster method. That method would result in a transfer of one Representative from Oklahoma to (not surprisingly) Massachusetts, while leaving the allocation to all other States (including Montana and Washington) unaffected. *Massachusetts v. Mosbacher*, Civ. No. 91-11234WD (D. Mass.). A three-judge court has been impaneled in that case as well. If the Massachusetts district court adopts the position of *either* party in that case, its judgment will conflict with the judgment of the three-judge court in this case. Prompt review therefore is especially warranted to avoid the possibility of inconsistent judgments regarding the constitutionality of the statutory formula for apportioning Representatives among *all* the States.

3. This Court has jurisdiction to resolve the important constitutional questions presented by this appeal. An appeal to this Court lies from "an order granting or

Secretary, Director, and Clerk are not determinative: the Secretary receives the necessary census data from the Director and then furnishes them to the President pursuant to 13 U.S.C. 141(b), and the Clerk performs the essentially ministerial task of notifying the States of the number of Representatives to which they are entitled under the President's statement. Rather, 2 U.S.C. 2a(b) renders the President's actions determinative, by providing that "[e]ach State shall be entitled * * * to the number of Representatives shown in the [President's] statement [to Congress] required by [2 U.S.C. 2a(a)]." Yet appellees understandably made no effort to join the President as a defendant.

Because the injunction entered by the district court is permanent, it apparently would bar the Secretary, Director, and Clerk from effecting a reapportionment following the *next* census (in the year 2000) according to the method of equal proportions prescribed by 2 U.S.C. 2a. The injunction therefore could be read to bar the Secretary from furnishing the President with tabulations of State populations and performing the necessary calculations under the equal proportions method on his behalf at that time.

denying * * * an interlocutory or permanent injunction in any civil action, suit or proceeding required by any Act of Congress to be heard and determined by a district court of three judges." 28 U.S.C. 1253. The judgment below grants a permanent injunction and was issued by a three-judge court. Hence, the Court has jurisdiction if a three-judge court was required by Act of Congress.

A three-judge court is required "when an action is filed challenging the constitutionality of the apportionment of congressional districts or the apportionment of any statewide legislative body." 28 U.S.C. 2284(a). A challenge to a *state* statute apportioning Representatives among congressional districts requires the convening of a three-judge district court under 28 U.S.C. 2284(a). *Karcher*, 462 U.S. at 729. The question whether a three-judge district court is also required for a challenge to a *federal* statute apportioning Representatives among the States is one of first impression.²⁰ But, in our view, such a case likewise is one "challenging the constitutionality of the apportionment of congressional districts" within the meaning of 28 U.S.C. 2284(a).

To be sure, 2 U.S.C. 2a speaks of apportioning "Representatives," not "congressional districts." But for present purposes, there is no difference in substance between those two terms. Within a State, for example, "apportionment of congressional districts" describes both the assignment of state residents to districts and the apportionment of

²⁰ In *Federation for American Immigration Reform (FAIR) v. Klutznick*, 486 F. Supp. 564 (D.D.C.), appeal dismissed, 447 U.S. 916 (1980), the plaintiffs contended that inclusion of illegal aliens in the 1980 census would be unconstitutional. A three-judge district court was convened. Although the district court held that the plaintiffs lacked standing, it also suggested that the case did not fall under Section 2284(a)'s three-judge court requirement. 486 F. Supp. at 577. However, the counting of persons in the States, at issue in *FAIR*, is not itself part of the apportionment of Representatives; it precedes, and is the predicate for, the apportionment. In this case, by contrast, appellees take the respective populations of the States as a given and challenge the actual apportionment of Representatives among the States based on those populations.

that State's Representatives among those districts. Accordingly, a constitutional challenge to the relative size of the congressional districts, as in *Wesberry* or *Karcher*, may be characterized as a challenge to either the apportionment of the congressional districts themselves or to the apportionment of Representatives among the districts. The same is true here. Under 2 U.S.C. 2c, the Representatives to which each State is entitled must be elected from "districts." As a result, 2 U.S.C. 2a directly determines both how many Representatives *and* how many congressional districts a State will have. Moreover, by prescribing the number of congressional districts in any State, 2 U.S.C. 2a also determines the average size of those districts, which in turn plays a central role in apportioning districts within the State. *Karcher*, 462 U.S. at 730-731. For these reasons, appellees are "challenging the constitutionality of the apportionment of congressional districts" for purposes of 28 U.S.C. 2284(a).²¹

²¹ The history of 28 U.S.C. 2284(a) supports this conclusion. Prior to 1976, state apportionment cases were often heard by three-judge courts, because 28 U.S.C. 2281 (1970) required such courts where the plaintiff sought to enjoin enforcement of a state statute on constitutional grounds. See, e.g., *Reynolds v. Sims*, 377 U.S. 533, 541 n.6 (1964); *Baker v. Carr*, 369 U.S. at 188. In 1976, Congress repealed 28 U.S.C. 2281 (1970), along with 28 U.S.C. 2282 (1970), which required a three-judge court if the plaintiff sought to enjoin enforcement of a *federal* statute on constitutional grounds. Pub. L. No. 94-381, §§ 1, 2, 90 Stat. 1119. At the same time, Congress amended 28 U.S.C. 2284(a) to require a three-judge court in cases challenging apportionment of congressional districts or statewide legislative bodies. § 3, 90 Stat. 1119.

The Senate Report on the 1976 amendments states that they "eliminate the requirement for three-judge courts in cases seeking to enjoin the enforcement of State or *Federal laws* on the grounds that they are unconstitutional, *except in reapportionment cases*." S. Rep. No. 204, 94th Cong., 1st Sess. 1-2 (1974) (emphasis added); accord, H.R. Rep. No. 1379, 94th Cong., 2d Sess. 3 (1976). This passage suggests that a three-judge court is required if "*Federal laws*" governing "reapportionment" are challenged. The Senate Report also states (at 9) that the 1976 revision "preserves" three-judge courts for "cases involving congressional reapportionment or the

Accordingly, as the court below held, a three-judge district court was properly convened in this case. This Court therefore has jurisdiction over the instant appeal under 28 U.S.C. 1253.²²

reapportionment of a statewide legislative body." See also H.R. Rep. No. 1379, *supra*, at 6 (emphasis added) (amendments will "continue the requirement for a three-judge court in cases challenging the constitutionality of *any* statute apportioning congressional districts or apportioning any statewide legislative body"). Because appellees' challenge to the constitutionality of the Act of Congress governing apportionment of Representatives would have required a three-judge court under 28 U.S.C. 2282 (1970) prior to 1976, the congressional intent expressed in the committee reports to "preserve" and "continue" existing requirements under 28 U.S.C. 2284(a) applies to cases involving challenges to federal as well as state laws governing "congressional reapportionment." So, too, does the Senate Report's observation (at 9) that reapportionment issues "are of such importance that they ought to be heard by a three-judge court."

²² If the Court disagrees with our position (and that of the district court and appellees) and holds that the three-judge district court was improvidently convened, an appeal from the judgment below lies in the Ninth Circuit. *Board of Regents v. New Left Education Project*, 404 U.S. 541, 545 (1972); *Turner v. City of Memphis*, 369 U.S. 350, 353 (1962); *Wilentz v. Sovereign Camp, Woodmen of the World*, 306 U.S. 573, 582 (1939). Accordingly, in addition to taking this direct appeal, we have, out of an abundance of caution, filed a protective notice of appeal to the Ninth Circuit and docketed the appeal in that court. And to ensure that this Court can render a decision this Term on the important constitutional questions presented even if it concludes that a direct appeal does not lie, we are filing, simultaneously with this jurisdictional statement, a petition for a writ of certiorari before judgment to the Ninth Circuit, pursuant to 28 U.S.C. 1254(1). If this Court should conclude at any stage that it does not have jurisdiction over this appeal, it may grant the certiorari petition in order to render a decision on the merits. See *Turner*, 369 U.S. at 353-354 (granting such a writ after holding that a three-judge court was improperly convened); *Stainback v. Mo Hock Ke Lok Po*, 336 U.S. 368, 371 (1949) (same); R. Stern, E. Gressman & S. Shapiro, *Supreme Court Practice* 272-228 & n.78 (6th ed. 1985).

CONCLUSION

The Court should note probable jurisdiction and reverse the judgment of the district court.

Respectfully submitted.

KENNETH W. STARR

Solicitor General

STUART M. GERSON

Assistant Attorney General

JOHN G. ROBERTS, JR.

Deputy Solicitor General

EDWIN S. KNEEDLER

Assistant to the Solicitor General

MICHAEL JAY SINGER

MARK B. STERN

MICHAEL S. RAAB

Attorneys

NOVEMBER 1991

APPENDIX A

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA
HELENA DIVISION

CV 91-22-H-CCL

THE STATE OF MONTANA; STAN STEPHENS, Governor of the State of Montana; MARC RACICOT, Attorney General for the State of Montana; MIKE COONEY, Secretary of State for the State of Montana; MAX BAUCUS, United States Senator; CONRAD BURNS, United States Senator; PAT WILLIAMS, United States Representative; and RON MARLENEE, United States Representative, PLAINTIFFS

v.

UNITED STATES DEPARTMENT OF COMMERCE; ROBERT A. MOSBACHER, Secretary of the United States Department of Commerce; BUREAU OF THE CENSUS; BARBARA EVERITT BRYANT, Director of the Bureau of the Census; and DONNARD K. ANDERSON, Clerk of the United States House of Representatives, DEFENDANTS

OPINION AND ORDER

[Filed Oct. 18, 1991]

Lovell, District Judge and
Battin, Senior District Judge:

This matter came on for hearing September 3, 1991, before a three-judge-court composed of United States Circuit Judge Diarmuid F. O'Scannlain, United

States Senior District Judge James F. Battin, and United States District Judge Charles C. Lovell, on cross-motions for summary judgment and also on Defendants' motion to review Judge Lovell's August 15, 1991, order. Plaintiffs were represented by Marc Racicot, Clay Smith, and Elizabeth S. Baker; and Defendants were represented by Susan L. Korytkowski and Mark H. Murphy. Having fully considered the presentations of the parties and the briefs filed in response to these motions, the court now enters its Opinion and Order.

PROCEDURAL HISTORY

Plaintiffs commenced this action on May 22, 1991, by filing their complaint for declaratory and injunctive relief, motions for preliminary injunction and for convening of three-judge-court, and affidavits and briefs in support thereof. After considering Plaintiffs' motion for convening of three-judge-court, Judge Lovell, on May 24, 1991, notified the Chief Judge of the Ninth Circuit Court of Appeals that the matter was appropriate for consideration by a three-judge-court.

A status conference with counsel was conducted on June 24, 1991, and the court set down a schedule for the filing and briefing of potentially dispositive motions. During that conference, the parties agreed that this matter could ultimately be submitted for decision on cross-motions for summary judgment. On July 9, 1991, the parties were notified that the other two judges had been designated and that the court intended to set the motion for preliminary injunction for hearing on September 3, 1991.

After denying Defendants' motions to dismiss Plaintiffs' complaint and to dissolve the three-judge-court,

by order of August 15, 1991, Judge Lovell set a schedule for the filing and briefing of cross-motions for summary judgment and also the motion to review the August 15, 1991, order. Those motions all came on regularly for hearing before the three-judge-court on September 3, 1991.

ARGUMENTS

Plaintiffs seek to prohibit Defendants from effecting a reapportionment of the United States House of Representatives for the 1992 congressional election based on the method prescribed by Title 2, United States code, section 2a. Plaintiffs Stephens, Racicot, and Cooney bring this claim on behalf of all voters of the state of Montana, claiming that the latest apportionment unconstitutionally denies Montana voters equal representation as required by Article I, Section 2 of the Constitution. Plaintiffs Baucus, Burns, Williams, and Marlenee (Congressional Delegation Plaintiffs) claim that the automatic apportionment method deprives them of the opportunity to vote on the decennial apportionment.

Defendants contend that this case is not appropriate for submission to a three-judge-court because it involves apportionment among the states rather than within the states. Defendants also argue that the complaint raises a nonjusticiable political question and that Plaintiffs lack standing to bring either the first or second claims for relief in the complaint. Finally, Defendants argue that even if the court proceeds to the merits of Plaintiffs' claim, the court should find 2 U.S.C. § 2a constitutional. Defendants contend that Congress should not be held to the same exacting standard in apportioning representatives among the states as state legislatures in apportioning

representatives within states. Defendants further argue that the court should approve Congress' choice of an apportionment method so long as Congress had a rational basis for that choice.

REVIEW OF AUGUST 15, 1991, ORDER

Before addressing the merits of Plaintiffs' claims, the three-judge-court initially reviews the order previously entered by Judge Lovell. Defendants seek review of the order denying their motion to dismiss Plaintiffs' complaint. Defendants first raised their justiciability and standing arguments in that motion to dismiss. The motion also requested that the three-judge-court be dissolved, claiming that the issues raised by Plaintiffs are not appropriate for submission to a three-judge-court. The three-judge-court has reviewed the briefs submitted by the parties relating both to Defendants' original motion to dismiss and to Defendants' motion to review the order entered by Judge Lovell, and has considered the arguments raised at the hearing.

A. *Three-Judge Court*

Section 2284 of Title 28, United States Code, provides:

A district court of three judges shall be convened when otherwise required by Act of Congress, or when an action is filed challenging the constitutionality of the apportionment of Congressional districts or the apportionment of any state-wide legislative body.

Plaintiffs filed this action challenging the constitutionality of Congress' apportionment of Congressional districts among the states. Therefore, this matter is appropriate for submission to a three-judge-court.

B. *Political Question*

The three-judge-court has reviewed the formulations traditionally employed to describe nonjusticiable political questions, and has determined that Plaintiffs' claims do not fall within any of those formulations. Plaintiffs' complaint calls upon this court to interpret the constitution and to decide whether the 1990 apportionment of representatives among the states meets the standards established by Article I, Section 2 of the Constitution. Constitutional interpretation is the responsibility of the judiciary, *Baker v. Carr*, 369 U.S. 186, 211 (1962), and this court will not shirk that responsibility.

C. *Standing*

Plaintiffs allege, in the first count of their complaint, that the current apportionment deprives voters in the state of Montana of equal representation in the House of Representatives. This injury to Plaintiffs' voting power can be traced to the use of an allegedly unconstitutional apportionment method, and there is a substantial likelihood that the injury will be redressed if Congress is forced to adopt a constitutional method.

Congressional Delegation Plaintiffs allege, in the second count of their complaint, that the automatic apportionment method deprives them of their opportunity to vote on legislation effecting the decennial census. This injury can be traced to the automatic nature of the current apportionment statute, and there is a substantial likelihood that the injury will be redressed if the court grants Plaintiffs the relief sought and declares the automatic apportionment statute unconstitutional. Plaintiffs have established their standing as to both counts of their complaint.

For the foregoing reasons, the three-judge-court hereby approves and adopts Judge Lovell's August 15, 1991, order denying Defendants' motion to dismiss and to dissolve three-judge-court.

CROSS-MOTIONS FOR SUMMARY JUDGMENT

Summary judgment is properly granted under Rule 56(c), Federal Rules of Civil Procedure, if "the pleadings and supporting materials show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." *California Architectural Building Products, Inc. v. Franciscan Ceramics*, 818 F.2d 1466, 1468 (9th Cir. 1987), *cert. denied*, 484 U.S. 1006 (1988). Both parties having agreed that there are no genuine issues of material fact in dispute, the court must now decide the legal issues raised by the parties.

One of the greatest controversies during the Constitutional Convention of 1787 concerned the issue of how representation would be apportioned in the new government's legislative body. 1 *Records of the Federal Convention of 1787* 321 (Farrand ed. 1911) (hereinafter *Farrand*). The more populous states argued that representatives should be apportioned according to population, and the less populous states argued that each state should have equal representation. When the inability to resolve this issue threatened to end the convention without formulating a constitution, Benjamin Franklin proposed what has become known as the "Great Compromise." *Id.* at 488. That compromise resulted in the creation of the two houses which make up this nation's current legislative branch. According to the framers, the House of Representatives would be apportioned on the basis of population and would represent the peo-

ple, and each state would be represented equally in the Senate which would therefore represent the states. *Id.* at 462. As summed up by William Samuel Johnson of Connecticut,

[i]n *one* branch the *people*, ought to be represented; in the *other*, the *States*.

Id. (emphasis in original).

It is evident from the record of the debates at the Convention that "when the delegates agreed that the House [of Representatives] should represent 'people' they intended that . . . the number [of Congressional seats] assigned to each State should be determined solely by the number of the State's inhabitants." *Wesberry v. Sanders*, 376 U.S. 1, 13 (1964).

If the power is not immediately derived from the people, in proportion to their numbers, we may make a paper confederacy, but that will be all.

Id. at 10 (citing *Farrand*, at 472).

Article I, Section 2 of the Constitution, one of the products of the "Great Compromise," provides for the apportionment of representatives to the House of Representatives among the several states "according to their respective [n]umbers." Section 2 also provides for a decennial determination of the number of people in each state, and thus of the number of representatives to which each state is entitled.

The method of apportioning representatives among the states has been a source of continuing controversy. In accordance with the mandate of Article I, Section 2, Congress debated and chose the method to be used for each decennial apportionment until 1920, when Congress failed to enact a reapportionment measure. That failure led Congress to enact a re-

apportionment statute in 1941 which specifies the statistical "method of equal proportions," also known as the "Hill method," as the chosen apportionment formula, and makes the reapportionment process self-executing. 2 U.S.C. § 2a. Congress determined that the apportionment of the seats remaining after the assignment of one seat to each state shall be based on the equal proportions method, 2 U.S.C. § 2a(a), and delegated the function of apportioning House seats to the Secretary of Commerce, who takes the decennial census. 13 U.S.C. § 141(a). Although there has been extensive congressional debate *following* most of the decennial censuses conducted since the adoption of the automatic method in 1941, Congress has not since conducted such inquiry *before* the decennial processes began. Here, the current apportionment was ordered without consideration of its merits by Congress.

In 1990, the Secretary of Commerce conducted the decennial census and notified the President of the results of that census. The President transmitted the results to Congress, and the Clerk of the House of Representatives notified each state of the number of representatives to which its residents were entitled. The state of Montana was notified that it is entitled to one representative in the House of Representatives.¹ That determination led the state of Montana to file the instant suit, challenging the constitutionality of 2 U.S.C. § 2a.

¹ According to the Census results, Montana has a population of 803,655. Montana was formerly apportioned two representatives. This reapportionment designates one representative for Montana as a single district. Thus, this single representative would represent 803,655 people. This single Congressional district contains the largest number of persons per representative in any district.

No state has heretofore turned to the judicial branch to challenge the method employed by Congress to apportion representatives among the several states. This case therefore raises an issue of first impression. Courts have frequently been faced with challenges to the apportionment of congressional seats within states. The Supreme Court developed the principle of equal representation for equal numbers of people as the standard for deciding such challenges in *Wesberry v. Sanders*, 376 U.S. 1 (1964). Plaintiffs contend that the apportionment principles announced in *Wesberry* and other cases involving intrastate redistricting apply to Congress' duty to apportion seats among the states. The Defendants, however, contend that *Wesberry* and its progeny, which interpret Article I, § 2 in the context of intrastate redistricting, do not apply to the national apportionment issue. They argue that the "one person, one vote" standard is a mathematical impossibility with respect to the interstate apportionment of seats in the House of Representatives because Congress must adhere to existing state boundaries and each state must have at least one representative. The court agrees with Plaintiffs that there is no principled reason why the standards set forth in *Wesberry* should not apply to the apportionment of representatives by Congress, despite this mathematical impossibility.

Article I, Section 2 provides no textual basis upon which to distinguish the duties of Congress from the duties of the state legislatures in this regard. Article I as a whole concerns the powers and responsibilities of the federal legislative branch, rather than state legislatures. The plain language of Article I, Section 2 specifically refers to apportionment among the several states. Clearly, any duty imposed upon state legislatures by Article I, Section 2 is also imposed upon Congress.

The principles set forth in *Wesberry* apply with equal force to Congress' apportionment of representatives among the several states. The Supreme Court in *Wesberry* construed Article I, Section 2 in light of the history of the debates leading to the "Great Compromise" and determined that "equal representation for equal numbers of people" is the "fundamental goal for the House of Representatives." *Id.* at 17. That debate centered on the issue of how seats should be apportioned to states, not on how state legislatures should draw districts within states. Thus, when James Wilson of Pennsylvania stated that "equal numbers of people ought to have an equal number of representatives . . .," and representatives "of different districts ought clearly to hold the same proportion to each other, as their respective constituents hold to each other," 1 *Farrand* 180, quoted in *Wesberry*, 376 U.S. at 11, he was referring to apportionment of House seats among the states rather than within the states. See also *Wesberry*, 376 U.S. at 31 (Harlan, J. dissenting) ("[T]he statements approving population-based representation were focused on the problem of how representation should be apportioned among the States in the House of Representatives. The Great Compromise concerned representation of the States in the Congress.")

The rationale underlying the *Wesberry* opinion actually has more relevance to the national apportionment issue than to intrastate redistricting. In essence, the Supreme Court simply precluded any state from indirectly violating the national standard of "equal representation for equal numbers of people" through its intrastate redistricting actions, stating that

It would defeat the principle solemnly embodied in the Great Compromise—equal representation

in the House for equal numbers of people—for us to hold that, within the States, legislatures may draw the lines of congressional districts in such a way as to give some voters a greater voice in choosing a Congressman than others.

Wesberry, 376 U.S. at 14. Clearly, the Supreme Court's decision in *Wesberry* with regard to intrastate redistricting was premised upon the notion that the "one person, one vote" standard ultimately governs, both at the national and the state levels. Therefore, Defendants' argument that the principles of *Wesberry* do not apply to congressional apportionment among the states is without merit.²

² In fact, in *Federation for American Immigration Reform v. Klutznick*, the court emphasized that while the mathematical notion of "one person, one vote" is not strictly applicable to the national issue, the underlying *Constitutional* principle of equal representation for equal numbers of people applies to both national apportionment and to intrastate redistricting. 486 F. Supp. 564, 577 (D.D.C. 1980). As Daniel Webster stated in his address to Congress in 1832,

The Constitution . . . must be understood, not as enjoining an absolute relative equality, because that would be demanding an impossibility, but as requiring of Congress to make the apportionment of Representatives among the several States according to their respective numbers, as near as may be. That which cannot be done perfectly must be done in a manner as near perfection as can be.

M. Balinski and H. Young, *Fair Representation: Meeting the Ideal of One Man, One Vote*, at 31 (1982) (first and second emphases added, third emphasis in original). Congress itself has recognized that the "one man, one vote" principle set forth in intrastate districting cases has at least some application to national reapportionment decisions. See *The Decennial Population Census and Congressional Apportionment*, H.R. Rep. No. 1314, 91st Cong., 2d Sess., at 5-6 (1970).

Article I, Section 2 imposes upon Congress the same duty to "meet the standard of equal representation for equal numbers of people as nearly as is practicable," *Wells v. Rockefeller*, 394 U.S. 542, 544 (1969), when apportioning Congressional districts that it imposes upon state legislatures.

Population equality between districts is the "pre-eminent, if not the sole, criterion on which to adjudge constitutionality." *Chapman v. Meier*, 420 U.S. 1, 23 (1975). "That is the high standard of justice and common sense which the Founders set for us." *Wesberry*, 376 U.S. at 18. "Adopting any standard other than population equality . . . would subtly erode the Constitution's ideal of equal representation." *Karcher v. Daggett*, 462 U.S. 725, 731 (1983) (citation omitted).

The "as nearly as is practicable" standard requires that a "good-faith effort [be made] to achieve precise mathematical equality" between districts. *Kirkpatrick v. Preisler*, 394 U.S. 526, 530-31 (1969). Only population variances which "are unavoidable despite a good-faith effort to achieve absolute equality, or for which justification is shown" are tolerated by Article 1, Section 2. *White v. Weiser*, 412 U.S. 783, 790 (1973) (quoting *Kirkpatrick*, 394 U.S. at 531)). In making this determination, the Supreme Court has stated that a "court must consider whether the population differences among districts could have been reduced or eliminated altogether by a good-faith effort to draw districts of equal population." *Karcher*, 462 U.S. at 730. Good faith is lacking when the use of a different apportionment scheme could easily reduce population variances. *Doulin v. White*, 528 F. Supp. 1323, 1329 (E.D. Ark. 1982).

A party challenging the apportionment of Congressional districts bears the burden of demonstrating that the population differences among districts could have been avoided. If the party challenging the apportionment scheme establishes "that the population differences were not the result of a good-faith effort to achieve equality," the burden then shifts to the defendant to prove "that each significant variance between districts was necessary to achieve some legitimate goal." *Karcher*, 462 U.S. at 730-31. "[N]either history alone, nor economic or other sorts of group interests, are permissible factors in attempting to justify disparities from population-based representation. Citizens, not history or economic interests, cast votes." *Reynolds v. Sims*, 377 U.S. 533, 579-80 (1964).

Plaintiffs contend that the goal of equal representation for equal numbers of people can only be met by adopting a reapportionment method which results in the smallest absolute difference between the number of persons per representative. Plaintiffs have presented expert testimony that the Dean method, also known as the method of harmonic means, best achieves that goal because it was expressly designed to, and does in fact, calculate reapportionment to result in the smallest *absolute* difference between numbers of persons per representative. (Tiahrt Affidavit at p. 3. See also Declaration of Ernst at p. 6.) The Dean method also best accomplishes the goal of creating districts closest to the ideal district size. (Tiahrt Affidavit at p. 5.) The Hill method can never meet the criteria proposed by Plaintiffs, because its express objective is to minimize the *relative* difference between the number of persons

per representative and the relative difference between each person's share of a representative.³

The criteria used by Plaintiffs have been used by other courts applying the equal population standard to intrastate apportionment. *Karcher*, 462 U.S. at 728 (variances between the actual districts and the ideal district size and total population difference between largest and smallest districts—range); *Kirkpatrick*, 394 U.S. at 527 (variance between actual districts and ideal); *White*, 412 U.S. at 785 (variances between the largest and smallest district and the ideal district size, average deviation from the ideal district size, and total population difference between largest and smallest districts—range); *Wells*, 394 U.S. at 540-41 (maximum deviation above and below the mean district size). No court has actually used the criteria proposed by Defendants to decide whether a good faith effort has been made to achieve equal representation among congressional districts. More importantly, the criteria proposed by Plaintiffs recognizes that the goal of Article I, Section 2 is equal representation, not relatively equal representation.

Courts traditionally look to variances from the ideal district size to determine whether a district is under or over represented. In determining whether avoidable and unjustified variances exist, the court looks to the entire apportionment plan. The court

³ By arguing that proportions and percentages are the proper criteria, rather than absolute numbers, Defendants ignore the fact that each number represents a person whose voting rights are potentially impacted by the population disparities. There is "no excuse for ignoring our Constitution's plain objective of making equal representation for equal numbers of people the fundamental goal for the House of Representatives." *Wesberry*, 376 U.S. at 18.

analyzes the disparities between states by comparing the districts in those states to the ideal district, and not to each other.

The ideal district reflects the size of each district if it were possible to truly achieve equal representation for equal numbers of people—the goal mandated by the Constitution. Any difference from the ideal reflects unequal representation. Thus, absolute difference from the ideal district is the proper criterion to use in determining whether Congress has met the goal of equal representation for equal numbers of people. Plaintiffs have met their burden of showing that another recognized and accepted statistical method, besides the Hill method, would more closely meet the constitutional mandate of absolute population equality among districts. The burden therefore shifts to Defendants to demonstrate that the greater disparity under the Hill method is necessary to achieve some legitimate goal.⁴

Defendants attempt to justify the variances in district size under the Hill method, contending that Congress considered and rejected the Dean method⁵ in 1941 when it chose the method of equal proportions. However, a review of the House debates prior to the enactment of 2 U.S.C. § 2a discloses that the

⁴ The court recognizes that two factors are present in interstate apportionment which mandate differences in district size—the need to maintain state boundaries and to award each state at least one representative. The Dean method complies with those requirements and results in smaller disparities between districts than the Hill method.

⁵ The court is not including the Adams method in its discussion, since it results in "quota violations," as recognized by the dissent, and therefore does not appear to be a viable alternative.

Dean method was not given serious consideration by Congress. The debates centered on choosing between the method of major fractions and the method of equal proportions, and there was little or no discussion of other available methods. 87 Cong. Rec. 1071, 1084 (1941). The legislative history does not support Defendants' argument that Congress deliberately chose the Hill method over the Adams and Dean methods since the only choice offered was between Hill and major fractions.

Defendants also contend that Congress determined that relative difference was a better measure of the inequity between district size than absolute population variances. If Congress indeed made that decision it did so without benefit of the Supreme Court's interpretation of Article I, Section 2, since the method of equal proportions was adopted prior to *Wesberry*. Moreover, Congress initially adopted the Hill method in 1941 because it allowed Arkansas to retain its existing congressional seats.⁶ Defendants admit that Congress' efforts to deal with reapportionment have been political in nature, involving compromises among the states.⁷ Defendants cannot justify the

⁶ During the debate one congressional delegate, Mr. Cox, presented the issue for discussion as being "whether Arkansas shall lose a representative and losing one, shall Michigan gain one." 87 Cong. Rec. at 1078.

⁷ Defendants actually compare Congress' efforts to select an apportionment method to the exercise the framers undertook—the Great Compromise. This comparison effectively demonstrates the fallacy of Defendants' entire argument. The House of Representatives was the *result* of the Great Compromise—one house to be chosen by the people based on population. The Constitution decrees that one house should be chosen on the basis of population, (persons per representative) and Congress cannot ignore that mandate by choosing a method which considers each person's share of a representative.

population variances based on Congress' past "considerations of practical politics." *Kirkpatrick*, 394 U.S. at 533.

Finally, Defendants argue that considerations of equity and fairness supported the selection of the Hill method in 1941. This position reflects the historical congressional concern with finding a "*mathematically defensible* way to apportion Representatives among the States in compliance with the Constitution." See *The Decennial Population Census and Congressional Apportionment*, H.R. Rep. No. 1314, 91st Cong., 2d Sess., App. B. at 15 (1970) (emphasis added). However, Congressional apportionment is not an issue to be governed by subjective mathematical or equitable concerns; it is strictly a Constitutional matter. Population equality within each district is *the* goal under the Constitution, not *a* goal, as Defendants argue. The Constitution mandates apportionment "among the several States . . . according to their respective Numbers," not "according to their respective Numbers and whatever other considerations Congress or its mathematicians may deem appropriate at any given time."

While it is theoretically possible to establish a justification for failure to comply, as far as is practicable, with the constitutional mandate of absolute population equality among districts, *see e.g., Doulin*, 528 F. Supp. at 1330 (projected population changes might, in some circumstances, be a justification that the Supreme Court would accept), it is difficult, if not impossible, to do so. This narrow construction of the constitutional apportionment mandate prompted one Supreme Court justice to complain "that the Court rejected 'every type of justification that has been—possibly, every one that could be—advanced.'" *Id.* quoting *Kirkpatrick*, 394 U.S. at 537, Fortas, J., con-

curing). The justifications offered by Defendants do not satisfy the stringent criteria applied by the United States Supreme Court.⁸

At any rate, Defendants cannot claim that Congress made a good faith effort to achieve the goal of equal representation for equal numbers of people before instituting the most recent reapportionment of representatives because the reapportionment process was automatic, and Congress, in its role as law and policy maker, had no part in the process. Congress, by enacting 2 U.S.C. § 2a in 1941, did not relieve itself of any further obligation to inquire into the Constitutionality of each apportionment decision.⁹ It does not place an undue burden upon Congress to require that, once every decade, it apply various accepted statistical methods to the census results and determine which

⁸ Assuming that Congress's selection of the Hill method was rational in 1941, as defendants argue, the court is not bound to uphold its constitutionality today, as applied to the 1990 census. A statute which was once validly enacted and constitutional may be rendered unconstitutional by a change in the facts or circumstances upon which it was based. See *Leary v. United States*, 395 U.S. 6, 38 n. 68 (1969); *United States v. Carolene Products, Co.*, 304 U.S. 144, 153 (1938); *Nashville, C. & S.L. Ry. v. Walters*, 294 U.S. 405, 415 (1935); *Chastleton Corp. v. Sinclair*, 264 U.S. 543, 547 (1924).

In this case, the Supreme Court's ruling in *Wesberry* (interpreting Article I, Section 2) and demographic changes in the United States' population since 1941 constitute sufficient changes in circumstances to call into question the rationality of 2 U.S.C. § 2a today.

⁹ This view somewhat overlaps the issues raised by Count II of Plaintiffs' Complaint for Declaratory and Injunctive Relief, concerning the automatic nature of the present apportionment statute. The court believes that Count II may have some merit, but will not address those issues since 2 U.S.C. § 2a has been declared unconstitutional on other grounds.

method best meets the Constitutional mandate for population equality among the districts.

By complacently relying, for over fifty years, on an apportionment method which does not even consider absolute population variances between districts, Congress has ignored the goal of equal representation for equal numbers of people. The court finds that unjustified and avoidable population differences between districts exist under the present apportionment, and

HEREBY ORDERS that Plaintiffs' motion for summary judgment is GRANTED, and Defendants' motion is DENIED as to Count I of Plaintiffs' complaint. Judgment shall enter declaring section 2a of Title 2, United States Code unconstitutional and void, and permanently enjoining Defendants from effecting reapportionment of the House of Representatives under the provisions of that statute. Having decided Count I in favor of Plaintiffs and granted Plaintiffs' request for declaratory and injunctive relief, it is unnecessary for the court to further consider the merits of Count II.

The clerk is directed forthwith to notify counsel of entry of this order.

Dated this 18 day of October, 1991.

/s/ Charles C. Lovell
CHARLES C. LOVELL
United States District Judge

/s/ James F. Battin
JAMES F. BATTIN
United States District Judge

O'SCANNLAIN, Circuit Judge, concurring in part and dissenting in part:

I join in the majority opinion to the extent it holds that the three-judge district court was properly convened, that plaintiffs have standing, and that plaintiffs' claims are justiciable.¹ On the merits, however, I am of the view that plaintiffs have failed to show that Congress' present method for allocating House of Representative seats to the states violates the Constitution, and hence I respectfully dissent from the order granting plaintiffs' motion for summary judgment.

I

The State of Montana, and its governor, attorney general, secretary of state and congressional delegation (the "State"), allege that the equal proportions formula used to allocate House seats among the states violates Article I, Section 2, of the Constitution. In the history of the Republic, Congress has used four different mathematical formulae² to apportion House

¹ To the extent, however, that plaintiffs' second claim alleges that the internal organization or processes of Congress have denied the Montana congressional delegation the opportunity to vote on apportionment issues, it is a non-justiciable political question. See *United States v. Munoz-Flores*, 110 S. Ct. 1964, 1970 (1990) (political question "doctrine is designed to restrain the judiciary from inappropriate interference in the business of the other branches of government"); see also *Armstrong v. United States*, 759 F.2d 1378, 1380 (9th Cir. 1985) (matter is justiciable because it "does not require delving into the internal records or workings of Congress").

² These are: Jefferson "greatest divisors" (1792-1830); Webster "major fractions" (1840, 1910, and 1930); Hamilton-Vinton "simple rounding" (1850-1900); and Hill "equal proportions" (1941-percent).

of Representatives seats among the states. Bureau of the Census, U.S. Dep't of Commerce, *Counting for Representation: The Census and the Constitution* 3-5 (1990). Following the 1920 census, Congress failed to reapportion House seats among the states. This failure was due in part to a lack of confidence in the population figures presented to Congress by the Census Bureau, but was also due in part to increasing doubts that the then-used "major fractions" formula accurately assigned House seats to states based on population. H. Rep. No. 1314, 91st Cong., 2d Sess. 16-17 (1970).

Hence in 1929, Congress commissioned the National Academy of Sciences (the "NAS") to determine which mathematical formula for allocating House seats among the states would best accomplish such allocation consistent with the constraint that states cannot be assigned fractions of a representative. See Report of the Nat'l Academy of Sciences Comm. on Apportionment (1919), reprinted in H. Rep. No. 1314, 91st Cong., 2d Sess. 19-21 (1970). The NAS recommended to Congress that it abandon the major fractions formula and adopt the Hill "equal proportions" formula. *Id.* The committee of four prominent mathematicians convened by the NAS to respond to Congress' inquiry studied five allocation formulae, including all of the formulae before the court in this matter. *Id.* The NAS study determined that the Hill formula was not only the least biased as between large states and small, but also led to the least percentage discrepancy in "sizes of congressional districts or . . . numbers of Representatives per person." *Id.*

In 1941, Congress passed into law a requirement that the method of equal proportions, the Hill formula, was to be used to apportion representatives among the

states. See 2 U.S.C. § 2a(a). Congress has revisited the issue of allocation methodology several times since 1941. In 1948, Congress commissioned another NAS study, which concurred in the 1929 study, again finding the Hill formula superior. In 1971, a House subcommittee stated that the Hill formula served the objective of keeping "the average number of persons per congressional district . . . as nearly equal as possible among the States," and hence declined to change it. H. Rep. No. 1314, 91st Cong., 2d Sess. 5-6 (1970). In 1981, the House considered a bill that would have replaced the Hill "equal proportions" formula with the Hamilton-Vinton formula, but the bill was never passed. In the latest allocation of House seats, conducted earlier this year and based on the 1990 census figures, the Hill formula was used, as it has been since 1941.

II

The Supreme Court has never set forth the standard for evaluating claims that Congress has misapportioned House seats among the several states. However, as early as *Yick Wo v. Hopkins*, 118 U.S. 356 (1886), voting had been held to be a "fundamental right." *Id.* at 370. More recently, the Court has stated: "Our Constitution leaves no room for classification of people in a way that unnecessarily abridges" the right to vote. *Wesberry v. Sanders*, 376 U.S. 1, 17 (1964). A court, therefore, should center its inquiry on the question of whether disparities in voting power are "unnecessary." Heightened scrutiny attends allegations of deprivation of voting rights. *Reynolds v. Sims*, 377 U.S. 533, 562 (1964).

Karcher v. Daniels, 462 U.S. 725 (1983), concerned the mapping of congressional districts within one state and hence is not directly applicable here. Nonetheless, the Court there set forth a burden shifting

scheme that provides a helpful analytic framework for evaluating the claims brought before us. Under this scheme, the plaintiff has the initial burden of showing that population differences exist among districts, and, more important, that such "differences were not the result of a good faith effort to achieve equality" and could have been avoided by use of a different districting plan. *Karcher*, 462 U.S. at 731. If the plaintiff meets that burden, the burden shifts to the defenders of the districting plan: "[T]he State must bear the burden of proving that each significant variance between districts was necessary to achieve some legitimate goal." *Id.*

III

Article I, Section 2, of the Constitution, as amended by Section 2 of the Fourteenth Amendment, requires that "Representatives shall be apportioned among the several States according to their respective numbers." The manifest command of this text is that House seats are to be allocated to the states based on population. It is also the clear implication of this text, however, that House seats may not straddle state lines; seats must be apportioned to a particular state. Moreover, Article I, Section 2, also provides that "each State shall have at Least one Representative." Hence, while population is an important factor in allocating House seats, other constraints affect the allocation. Because the Constitution provides for these additional constraints, Justice Harlan observed that it "is not strictly true" that "in allocating Congressmen the number assigned to each State should be determined solely by the number of the State's inhabitants." *Wesberry*, 376 U.S. at 26-27 n.8 (1964) (Harlan, J., dissenting) (emphasis added).

Contemporaneous accounts of the drafting of the Constitution similarly evince the Framers' intent that

the House be apportioned according to population, subject to the constraints inherent in the Constitution's federal structure. One of the great debates at the Constitutional Convention centered on how to allocate seats in the National Legislature. Although each state, regardless of population, had been equally represented in the Continental Congress, many now argued that "equal numbers of people ought to have an equal no. of representatives." 1 *The Records of the Federal Convention of 1787* at 179 (Farrand ed. 1937) (statement of James Wilson of Pennsylvania). This debate culminated in the Great Compromise, which allocated seats to the states on the basis of population in one chamber, and irrespective of population in the other.

James Madison confirmed the Framers' intent that House seats should be allocated by population. He expressed the view that "[i]t is a fundamental principle of the proposed Constitution, that . . . the aggregate number of representatives allotted to the several States[] is to be determined by a federal rule, founded on the aggregate number of inhabitants." *The Federalist*, No. 54 at 368 (Van Doren ed. 1945).

Hence it is clear that the general principle for allocation is that House seats are to be assigned to states based on population. Unlike in the intrastate context, however, this is not the end of the analysis in the interstate context. For the Constitution requires that the general principle of allocation by population be subject to the following constraints: there must be at least one representative per state, and congressional districts cannot cross state lines. These constraints create the so-called fractional interest problem. For instance, when Montana's percentage of the total U.S. population is multiplied by 435, it should receive 1.404

representatives.³ Since the Constitution does not permit a representative to be shared between two states, Montana cannot have four-tenths of a representative in Congress. It is impossible, therefore, to follow precisely the general principle of apportionment by population.

James Madison's notes of the Constitutional Convention debate show that the Framers were aware that the scheme they were creating would lead to the fractional interest problem: "A State might have one Representative only, that had inhabitants enough for $1\frac{1}{2}$ or more, if fractions could be applied" 2 *The Records of the Federal Convention of 1787* at 358 (Farrand ed. 1937) (statement of Oliver Elsworth of Connecticut). The Framers, however, did not include in the Constitution a specific mathematical formula to address the fractional interest problem, and the allocation formula to be used became a point of contention between the First Congress and President Washington. See Joseph Story, 2 *Commentaries on the Constitution* § 678-79 (1833).

Justice Story addressed the fractional interest problem in his *Commentaries on the Constitution*. He first noted that "there can be no subdivision of a [representative]; such state must be entitled to an entire representative, and a fraction of a representative is incapable of apportionment." *Id.* at § 676. Yet Justice Story rejected the notion that if the allocation of House seats could not be accomplished strictly proportionate to population, population should be entirely disregarded. Instead, he reasoned:

³ This number, the exact, unrounded proportion of representation a state would be entitled to if fractions of representatives could be apportioned, is referred to by statisticians as the state's "quota."

the truest rule seems to be, that the apportionment ought to be the nearest practical approximation to the terms of the constitution; and the rule ought to be such, that it shall always work the same way in regard to all the states, and be as little open to cavil, or controversy, or abuse, as possible.

Id. Thus, in evaluating the State's claims, this court must be mindful that representation in the House precisely proportionate to population is impossible under the constitutional plan. Because the goal of any apportionment formula is to be a "practical approximation" to a population-based allocation, merely pointing out that the equal proportions formula leads to population disparities is insufficient to condemn it. Rather, it must be shown that lesser population disparities are possible using another formula.

IV

The State alleges that the equal proportions formula used to allocate House seats among the states is unconstitutional under Article I, Section 2, of the Constitution. The initial burden is on the State to show that the population differences under the equal proportions formula are avoidable, and that they result from the lack of a good faith effort by Congress to achieve population equity among districts, subject to the constitutional provisions requiring at least one representative per state and barring congressional districts from straddling state boundaries. In my view, the State has failed to meet that burden.

Although the Supreme Court has indeed had occasion to evaluate *intrastate* apportionment plans in cases such as *Wesberry* and *Karcher*, the standard of precise numerical equality announced in those cases

is impossible to apply here. We engage in a fundamentally different inquiry. Although population equity among districts is a guiding principle, because of the constraints imposed by the Constitution it is impossible to have districts that are even approximately equal in size. Indeed, application of any of the apportionment formulae before this court results in congressional district populations varying by hundreds of thousands of people between states. In intrastate apportionment cases, we must ask the relatively straightforward question: do the districts have the same population? This court has the more complex task of evaluating the relative merits of plans which, by necessity, all fall far short of population equality.⁴

Three different formulae for addressing the fractional interest problem are before this court. The currently used Hill "equal proportions" formula rounds upward all fractions that are greater than the geometric mean of the two whole numbers the fraction falls between. The State offers two alternative

⁴ Variance analysis is a less than straightforward inquiry. In testimony before the House Subcommittee on Census and Population in 1980, a former Census Bureau statistician observed that there are at least three ways in which the constitutional command of representation based on population could be translated into a statistical test for allocation formulae: (1) variability from the ideal number of persons per district, (2) variability from the ideal share each person should have of his representative's vote, or (3) variability of nearness to quota. H. Rep. No. 18, 97th Cong., 1st Sess. 58 (1981). Moreover, variability could be measured both as the absolute variance, or as the variance of the mean squared, which is more typically used by statisticians. *Id.* When the statistician evaluated several allocation formulae, no one formula proved best under all of these measures. *Id.*

allocation formulae it contends would reduce population differences among districts. The Adams "smallest divisors" formula rounds all fractions up no matter how small. The Dean "harmonic means" formula rounds fractions upward if the fraction exceeds the harmonic mean of the two whole numbers the fraction falls between. The Adams and Dean formulae, which have in common the fact that their use would result in two House seats being allocated to Montana, are alleged by the State better to serve the constitutional requirement that House seats be allocated by population.

The Adams "smallest divisors" formula, in my view, is clearly inconsistent with the principle that House seats should be allocated to the states by population. Its most obvious defect is that it violates "quota" for four states. That is, it assigns a number of representatives to a state that is neither of the two closest whole numbers to that state's exact, unrounded share of representation. For instance, California's unrounded quota is 52.124; that is, if representatives could be apportioned in fractions, California would be entitled to exactly 52.124 representatives in the next Congress, based on its 1990 census population. Defs.' Ex. 1 at 12 (declaration of Ernst). While there may be room for argument whether California's quota should be rounded down to 52 or up to 53 representatives, surely it could not be plausibly argued that the House was apportioned according to population if California were allocated only 50 House seats. Yet that is exactly the result compelled by adoption of the Adams plan. *Id.* And California is not an isolated case. Using the Adams formula, Illinois, New York, and Ohio would also receive an ap-

portionment of House seats in violation of their quotas, under the 1990 census. *Id.* at 13.

The Hill "equal proportions" formula, by contrast, has never violated quota in the fifty years it has been in use. *Id.* Every state has always been assigned a number of House seats that is one of the two closest whole numbers to its exact quota. I fail to see how the Adams formula could be said to be more consistent than the Hill formula with the command of Article I, Section 2, that House seats be apportioned to the states based on population.

Nor does application of the Dean "harmonic means" formula show that the Hill "equal proportions" formula leads to unnecessary population differences. The result under the Dean formula is relatively easy to compare to that under the Hill formula because the only difference in seat allocation would be that Washington state's ninth House seat would be reassigned and added to Montana. Pls.' Hill Aff. Ex. G at 1. All other House seat assignments would remain the same under both formulae. This switch of one House seat would *increase* the population variance between the only two states affected. Under the current apportionment using the Hill formula, Montana's congressional district is 48.0% larger than Washington's average district. Using the Dean formula, Washington's districts would become 52.1% larger than Montana's.

The majority states that the "absolute difference from the ideal district is the proper criterion to use in determining whether Congress has met the goal of equal representation for equal numbers of people." *Ante* at 19. Yet under this criterion, the Hill "equal proportions" formula also performs better than the Dean "harmonic means" formula. Under the Hill formula, Montana has one district that is 231,189

persons larger than the ideal district size. If the Dean formula were used, Montana would have two districts, each 170,638 persons smaller than the ideal, for a total absolute variance of 341,276 from the ideal district size. Likewise, Washington's absolute population variance would *increase* by shifting from the Hill formula to the Dean formula. Under the Hill formula, Washington has nine districts, each 29,361 persons too small, for a total absolute variance of 264,249, while adopting the Dean formula would create eight districts, each 38,527 persons too large, increasing the total absolute variance to 308,216. Interestingly, Montana apparently argues that it can live with a variance of 341,276 persons under the Dean formula, while it insists that its 231,189 person variance under the Hill formula is clearly unconstitutional.

The State puts great stock in the fact that under one measure, the Dean and Adams formulae do perform better than the Hill formula: both the Dean and Adams formula produce a narrower range between the smallest district and the largest. That is, if one selects the single biggest district and the single smallest district in the country, and compare just those two, the disparity is smaller when using the Dean or Adams formulae than when using the Hill formula.

The analysis cannot be limited, however, to only two of the nation's congressional districts to the exclusion of the other 433. Instead of examining the degree to which just two districts vary from the ideal, a rigorous analysis looks at the variance of every district in the nation. When all 435 districts are considered, the Hill method has the *least absolute population variance* from the ideal district size, compared to either the Dean or Adams methods. Defs.' Ex. 1 at 13 (declaration of Ernst). Moreover, "it can be

shown mathematically that the [Hill] equal proportions method minimizes this variance among all apportionment methods and all sets of populations." *Id.* at 14.

In my view, the majority is mistaken in stating that "[t]he Dean method . . . best accomplishes the goal of creating districts closest to the ideal district size." *Ante* at 17. The State's expert did originally claim that "the Dean method produces the smallest variance or standard deviation." Pls.' Tiahrt Aff. at 5. The Census Bureau's expert, however, has pointed out that the State erred by "fail[ing] to take into account the number of districts in each state" when computing their variance analysis.⁵ Defs.' Ex. 1 at 13 (declaration of Ernst). The State has conceded this error. *See* Pls.' Br. in Opp'n to Defs.' Mot. for Summ. J. 2 n.1 ("Plaintiffs do not dispute the factual allegations contained in the Declaration of Lawrence Ernst."). The Census Bureau has persuasively shown that the Hill formula is superior, notwithstanding the State's mistaken belief that the Dean formula produced the

⁵ The reason a variance analysis must account for the number of districts per state is not that there could be variance among the districts within a given state. Indeed, Dr. Ernst's calculations assume that districts within a given state will be evenly sized, as required under *Karcher*. Rather, the necessity of accounting for the number of districts per state is illustrated by the following hypothetical: State A has one district which is 100,000 persons larger than the ideal district. State B has fifty districts, each 10,000 persons larger than the ideal. Under the State's incorrect variance analysis using the average variance for each state, State A's average variance of 100,000 persons is greater than State B's average variance of 10,000 persons. When the number of districts in each state is accounted for, however, State B's variance of 500,000 persons ($50 \times 10,000$) is much larger than State A's variance of 100,000 persons ($1 \times 100,000$).

least absolute variance. *See* Defs.' Ex. 1 at 13 (declaration of Ernst).

In sum, neither of the formulae proposed by the State lead to less population variance than the Hill "equal proportions" formula in use for the past fifty years. The State, in my view, has failed to demonstrate that a better formula exists than the one chosen by Congress. Surely when the Hill formula leads to the least population variance from the ideal, among the formulae put before this court, it cannot be said that Congress has failed to make a good faith effort to achieve population equality among congressional districts. *Karcher* requires just such a showing by the State, and therefore I conclude that the State has failed to meet its burden of proof.

V

The State also claims that section 2a of Title 2 of the United States Code is unconstitutional under Article I, Sections 2 and 7, by not allowing legislative consideration of reapportionment. The majority did not reach this claim, but in my view it should be dismissed for failing to state a claim upon which relief can be granted.

First, there is no textual support in Article I, Sections 2 or 7, for the proposition that at each census, Congress must reexamine the mathematical formula it uses to allocate House seats.⁶ Article I, Section 2, mandates an "actual Enumeration" every ten years, but gives no hint that Congress must reexamine every ten years the formula it uses to address the fractional

⁶ Seldom in constitutional jurisprudence does a court encounter a claim, as here, where there is an utter void of case law. We must perforce make direct recourse to the naked text of the Constitution, a daunting prospect indeed.

interest problem. Section 7 merely recites the process which must be followed for a bill to be enacted into law. It is not alleged that section 2a of Title 2 was enacted in violation of Article I, Section 7, and nothing in section 2a interferes with the process set forth in Section 7 for enacting law. Hence, the constitutional basis for the State's second claim is most unclear.

Second, even if the Constitution does require Congress to reexamine the allocation methodology every ten years, nothing about section 2a of Title 2 prevents such a reexamination. As with any federal statute, Congress is always free to pass superseding legislation that expressly or impliedly repeals section 2a. Indeed, on at least three occasions since section 2a was passed in 1941, Congress has reconsidered use of the Hill "equal proportions" formula specified in section 2a. In 1948, Congress commissioned a NAS study on allocational formulae, and in 1971 and 1981, subcommittee hearings were held on whether section 2a should be amended. Moreover, to the extent the Montana congressional delegation is alleging that the action of their House and Senate colleagues has prevented consideration and passage of a replacement to the Hill formula, we lack jurisdiction because such claim presents a non-justiciable political question.

Despite the State's characterization of section 2a as an "automatic" allocation scheme that is somehow beyond congressional control, nothing but a lack of political will prevents Congress from repealing or amending section 2a now or in the future to change the allocation formula. That Congress has chosen for the time being not to amend section 2a of the statute does not violate either sections 2 or 7 of Article I. I would dismiss the State's second claim.

VI

The Framers could have created a system where congressional districts disregarded state boundaries, in the same way intrastate districts are now drawn across county lines or city limits. This would have largely eliminated the fractional interest problem, since without the constraint of staying within state boundaries, the nation could be divided up into 435 districts each of equal population. But although they recognized the fractional interest problem, the Framers persisted in creating a scheme whereby House seats are assigned to states, not directly to groups of 572,466 people (the current ideal district size), because of the sovereign role the states play in our federal system. Under our scheme of federalism the population within congressional districts must inevitably vary from state to state, and as Justice Story instructs us, the best we can seek is "the nearest practical approximation" to the ideal of apportionment exactly proportionate to population. Either of the alternative formulae put forward by the State creates a greater absolute population variance from the ideal district size than the Hill "equal proportions" formula. The State, in my view, has failed to show that the formula mandated by Congress is not "the nearest practical approximation," and hence I would grant defendants' motion for summary judgment.

Dated this 18 day of October, 1991.

/s/ Diarmuid F. O'Scannlain
DIARMUID F. O'SCANNLAIN
United States Circuit Judge

APPENDIX B

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA
HELENA DIVISION

CV 91-22-H-CCL

THE STATE OF MONTANA; STAN STEPHENS, Governor of the State of Montana; MARC RACICOT, Attorney General for the State of Montana; MIKE COONEY, Secretary of State for the State of Montana; MAX BAUCUS, United States Senator; CONRAD BURNS, United States Senator; PAT WILLIAMS, United States Representative; and RON MARLENEE, United States Representative, Plaintiffs,

v.

UNITED STATES DEPARTMENT OF COMMERCE; ROBERT A. MOSBACHER, Secretary of the United States Department of Commerce; BUREAU OF THE CENSUS; BARBARA EVERITT BRYANT, Director of the Bureau of the Census; and DONNARD K. ANDERSON, Clerk of the United States House of Representatives, Defendants.

ORDER

[Filed Aug. 15, 1991]

The undersigned by order entered July 8, 1991, indicated that it was the court's intention to set this matter for hearing on September 3, 1991. Now having ruled on the pending motions to dismiss and to dissolve the three-judge court,

IT IS ORDERED that this case is set down for hearing on Plaintiffs' motion for preliminary injunction on Tuesday, September 3, 1991, at 9:30 a.m., in the courtroom of the United States Courthouse, Helena, Montana, before the three-judge court comprised of the Honorable Diarmuid F. O'Scannlain, United States Circuit Judge, the Honorable James F. Battin, Senior United States District Judge, and the undersigned.

The court will also hear at that same time and place cross-motions by the parties for summary judgment, should they desire to file same.

Each such motion shall be filed no later than August 20, 1991, and shall be accompanied by a supporting legal memorandum. Each party shall have five days thereafter to reply to the memorandum of the other party.

Any party wishing review by the full court of the undersigned's order denying defendants' motion to dismiss and motion to dissolve the three-judge court may file a request for such review within five days of the date hereof and may support such request by the filing of a legal memorandum, or by incorporating by reference briefs earlier filed herein. Any new matter raised by any filing supporting a request for review of this order may be replied to within five days. In the event any party requests such review, that issue will also be heard by the full court on September 3, 1991.

The clerk is directed forthwith to notify counsel of entry of this order.

Done and dated this 15 day of August, 1991.

/s/ Charles C. Lovell
CHARLES C. LOVELL
United States District Judge

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA
HELENA DIVISION

CV 91-22-H-CCL

THE STATE OF MONTANA; STAN STEPHENS, Governor of the State of Montana; MARC RACICOT, Attorney General for the State of Montana; MIKE COONEY, Secretary of State for the State of Montana; MAX BAUCUS, United States Senator; CONRAD BURNS, United States Senator; PAT WILLIAMS, United States Representative; and RON MARLENEE, United States Representative, Plaintiffs,

v.

UNITED STATES DEPARTMENT OF COMMERCE; ROBERT A. MOSBACHER, Secretary of the United States Department of Commerce; BUREAU OF THE CENSUS; BARBARA EVERITT BRYANT, Director of the Bureau of the Census; and DONNARD K. ANDERSON, Clerk of the United States House of Representatives, Defendants.

ORDER

[Filed Aug. 15, 1991]

Plaintiffs commenced this action on May 22, 1991, by filing their complaint for declaratory and injunctive relief, motions for preliminary injunction and for convening of three-judge-court, and affidavits and briefs in support thereof. After considering Plaintiffs' motion for convening of three-judge-court, the

undersigned, on May 24, 1991, notified the Chief Judge of the Ninth Circuit Court of Appeals, that the matter is appropriate for consideration by a three-judge-court.

On June 10, 1991, the parties stipulated to allow Defendants sixty days from service of the complaint to respond to Plaintiffs' motion for preliminary injunction. Defendants also reserved the right to file potentially dispositive motions prior to the end of the sixty-day period. After reviewing the parties' stipulation, the court set a status conference to enable the court to determine the nature of any potentially dispositive motions and set a schedule for the filing and briefing of such motions.

Shortly thereafter, Executive Branch Defendants¹ filed their motions to dismiss and to dissolve three-judge-court. Those motions have been fully briefed, and the court is now prepared to rule.²

BACKGROUND

Plaintiffs seek to prohibit Defendants from effecting a reapportionment of the United States House of Representatives for the 1992 elections based on the method prescribed by Title 2, United States Code, section 2a. Plaintiffs contend that the current apportionment method violates the United States Constitution's guaranty of each citizen's right to an equal

¹ Executive Branch defendants include all named defendants except Donnal K. Anderson, the Clerk of the United States House of Representatives, who has stipulated to be bound by the court's resolution of Plaintiffs' claims.

² These motions are appropriate for determination by a single judge because they do not involve determination of an application for an injunction or judgment on the merits. 28 U.S.C. § 2284(c).

voice in choosing a representative in Congress. (U.S. Const. Art. I, § 2.) Congressional Delegation Plaintiffs³ contend that the automatic process by which reapportionment is currently accomplished deprives them of their right to vote on any reapportionment scheme that will affect the representation of their state's citizens.

ARGUMENTS

Executive Branch Defendants argue that this case is not proper for submission to a three-judge-court because it is not justiciable and therefore the three-judge-court should be dissolved and the complaint dismissed. Executive Branch Defendants contend that the complaint raises a nonjusticiable political question because the power to apportion congressional seats among the states is textually committed to Congress by the constitution and because the legislative branch, rather than the judicial branch, is best able to determine the appropriate formula for apportioning congressional seats among the states. Executive Branch Defendants also argue that Plaintiffs lack standing to bring either the first or second claims for relief in the complaint. Although Executive Branch Defendants state that the three-judge-court statute may not apply to this matter, they choose not to raise that argument.

Plaintiffs respond that the political question doctrine has never prevented courts from deciding the constitutionality of congressional enactments. Plaintiffs contend that they have satisfied all standing requirements. Finally, Plaintiffs argue that the plain language of the three-judge-court statute demon-

³ Congressional Delegation Plaintiffs are Max Baucus, Conrad Burns, Pat Williams, and Ron Marlenee.

strates that the convening of a three-judge-court is appropriate whenever the constitutionality of congressional apportionment is challenged.

DISCUSSION

A. *Three-Judge-Court Issue*

The undersigned determined that this case presented substantial constitutional issues concerning the reapportionment of congressional districts before granting Plaintiffs' motion to convene a three-judge-court. This is truly a case of first impression, and neither the state-wide apportionment cases cited by Plaintiffs and decided by three-judge-courts, nor the census challenge cases cited by Defendants and decided by single judges, are directly on point. The plain language of the statute indicates that apportionment issues are appropriate for decision by three-judge-courts. The congressional history demonstrates that congressional recognition of the importance of apportionment issues led to the specific mention of such cases in the three-judge-court statute. The importance of the issue raised here is heightened by the fact that this case concerns apportionment of congressional seats among the states, making the convening of a three-judge-court both appropriate and necessary.

B. *Political Question Issue*

The political question doctrine can best be described in terms of the "several formulations" set forth in *Baker v. Carr*, 369 U.S. 186, 217 (1962).⁴ Executive

⁴It is apparent that several formulations which vary slightly according to the settings in which the questions arise may describe a political question, although each has one or

Branch Defendants' contention that this matter falls within the first and fourth *Baker* formulations because reapportionment issues are committed to Congress, and the judicial branch cannot interfere in this area without showing disrespect to a coordinate branch of government is without merit.

The court agrees that the Constitution commits to Congress both the right and the responsibility to apportion seats in the House of Representatives among the several states. The issue here is whether Congress, by adopting the formula and method set forth in 2 U.S.C. § 2a, "has chosen a constitutionally permissive means of implementing that power." *INS v. Chadha*, 462 U.S. 919, 940 (1982). Executive Branch Defendants would have this court accept that "every judicial resolution of a constitutional challenge to a congressional enactment" involves a non-judicial political question, a theory repeatedly rejected by the United States Supreme Court. *United States v. Munoz-Flores*, 109 L. Ed. 2d 384, 394-95 (1990).

Executive Branch Defendants also contend that the second and third *Baker* formulations are implicated

more elements which identify it as essentially a function of the separation of powers. Prominent on the surface of any case held to involve a political question is found a textually demonstrable constitutional commitment of the issue to a coordinate political department; or a lack of judicially discoverable and manageable standards for resolving it; or the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion; or the impossibility of a court's undertaking independent resolution without expressing lack of the respect due coordinate branches of government; or an unusual need for unquestioning adherence to a political decision already made; or the potentiality of embarrassment from multifarious pronouncements by various departments on one question.

in this matter. According to Executive Branch Defendants, there is no meaningful judicial standard to determine how many congressional representatives should be apportioned to each state in light of the inherent fraction problem, and only Congress is capable of arriving at a solution that will balance the interests of all states.

The judiciary has consistently shown itself capable of developing standards to determine difficult issues and balance competing rights and interests. See *Munoz-Flores*, 109 L.Ed. 2d at 397 ("Surely a judicial system capable of determining when punishment is 'cruel and unusual,' when bail is '[e]xcessive,' when searches are 'unreasonable,' and when congressional action is 'necessary and proper'" is equally capable of developing standards for making other determinations concerning the constitutionality of congressional actions). Courts have successfully applied the judicially created "one person, one vote" standard to statewide apportionment disputes, while recognizing that reapportionment does not lend itself to a precise mathematical formula, *Wesberry v. Sanders*, 376 U.S. 1, 17 (1964), and the United States Supreme Court has determined that the inability to "perceive a likely arithmetic presumption . . . does not compel a conclusion that the claims presented . . . are nonjusticiable." *Davis v. Bandemer*, 478 U.S. 109, 123 (1986).

Finally Executive Branch Defendants argue that the danger of "multifarious pronouncements" concerning the apportionment formula demonstrates the "need for unquestioning adherence" to the decision already made by Congress, and implicates the fifth and sixth *Baker* formulations. Executive Branch Defendants anticipate "multifarious pronouncements" within the judiciary because the potential exists for other states to file similar lawsuits and the joinder of all

states in one action is not feasible. The potential that different courts may issue disparate opinions on this issue does not give rise to the sixth *Baker* formulation, which concerns "multifarious pronouncements by various departments." *Baker*, 369 U.S. at 217.

This case is clearly "political," in the sense that it is fraught with "significant political overtones." *Chadha*, 462 U.S. at 942-43. However, the political question doctrine was not intended to relieve courts of their responsibility to resolve controversies because those controversies carry with them political implications. See *Baker*, 369 U.S. at 217 ("courts cannot reject . . . a bona fide controversy as to whether some action denominated 'political' exceeds constitutional authority"). This court will not employ the political question doctrine to avoid resolution of the profound and significant issues presented in this case.

C. *Standing Issues*

To establish standing, each Plaintiff "must allege personal injury fairly traceable to [Defendants'] allegedly unlawful conduct and likely to be redressed by the requested relief." *Allen v. Wright*, 468 U.S. 737, 751 (1984). In determining the standing issues raised by Defendants, the court accepts the material allegations of the complaint as true, *Metropolitan Washington Airports Authority v. Citizens for the Abatement of Aircraft Noise*, 59 U.S.L.W. 4660, 4663 (1991), and construes the complaint in favor of Plaintiffs. *Moore v. United States House of Representatives*, 733 F.2d 946, 950 (D.C. Cir. 1984).

1. *First Claim for Relief*

Executive Branch Defendants contend that the injury threatened by their conduct is to the citizens of

the State of Montana, and not to the state itself. The State of Montana responds that it has a sovereign interest in its number of electoral votes and will suffer an injury when one of those votes is lost. The appointment of electors is a right held "exclusively by the states." *McPherson v. Blacker*, 146 U.S. 1, 35 (1892). Therefore the state has alleged an injury to itself and not merely to its voters. Moreover the individually named plaintiffs are all citizens of Montana and have alleged personal injury to their voting power.

The court is not persuaded that Plaintiffs must satisfy the stringent requirements of the "but-for" causation test advanced by Executive Branch Defendants to demonstrate that the "line of causation between the illegal conduct and the injury" is not so "attenuated" as to prohibit Plaintiffs from bringing their claim. *Allen*, 468 U.S. at 752. At this stage in the proceedings, the court accepts the material allegations of the complaint as true and finds that the allegedly unconstitutional apportionment method is a substantial factor contributing to Plaintiffs' loss of a representative in the House of Representative and in the electoral college.

To determine whether a decision favorable to Plaintiffs is likely to relieve their alleged injury, the court must analyze "whether it has the power to right or to prevent the claimed injury." *Gonzales v. Gorsuch*, 688 F.2d 1263, 1267 (9th Cir. 1982). Executive Branch Defendants assert that Plaintiffs' claims are too speculative to satisfy the redressability component of standing because Congress will ultimately decide the appropriation formula, and the court cannot predict which formula Congress will adopt. Uncertainty as to which party will ultimately prevail is

present in any lawsuit, and does not affect a party's standing to bring its claim. Plaintiffs' first claim for relief is premised on the argument that a constitutional apportionment method is one which results in the least amount of disparity in district size. Plaintiffs have demonstrated a substantial likelihood that adoption of an apportionment method which results in the least amount of disparity in district size will also result in the apportionment of two congressional districts to the State of Montana. Thus a decision favorable to Plaintiffs will likely result in redress of Plaintiffs' injury. Plaintiffs have standing as to their first claim for relief.

2. *Second Claim for Relief*

The only argument raised by Executive Branch Defendants concerning the standing of Congressional Delegation Plaintiffs to bring their second claim for relief concerns the personal injury requirement of standing. Plaintiffs who sue in their capacity as legislators must "allege a concrete injury in fact to a specific legal interest in order to invoke the jurisdiction of the court." *Moore*, 733 F.2d at 951. Legislators "have a plain, direct and adequate interest in maintaining the effectiveness of their votes." *Coleman v. Miller*, 307 U.S. 433, 438 (1939). "Loss of effectiveness in voting" can constitute an injury in fact if there is an injury to a "legally cognizable interest." *Chiles v. Thornburgh*, 865 F.2d 1197, 1205-06 (11th Cir. 1989).

Congressional Delegation Plaintiffs allege that the automatic nature of the current reapportionment method deprives them of the opportunity to debate and vote on an issue which the constitution mandates

must be decided by Congress.⁵ Congressional Delegation Plaintiffs have accordingly alleged a specific and discernible injury which is sufficient to confer standing in this action.

In accordance with the foregoing opinion,

IT IS HEREBY ORDERED that Defendants' motion to dismiss and motion to dissolve three-judge-court are DENIED.

Pursuant to 29 U.S.C. § 2284, any order of the undersigned such as this may be reviewed by the full court at any time before final judgment. Any party desiring such review of this order should file a request therefor within five days, in which event oral argument supporting said request will also be heard at the time set down for hearing Plaintiffs' motion for preliminary injunction.

The clerk is directed forthwith to notify counsel of entry of this order.

Done and dated this 15 day of August, 1991.

/s/ Charles C. Lovell
CHARLES C. LOVELL
United States District Judge

⁵ Executive Branch Defendants argue that Congressional Delegation Plaintiffs are not deprived of their right to debate these issues because any member of the legislature could submit this issue to Congress. Although the "doctrine of equitable discretion" allows the court to refuse to entertain suits brought by members of Congress who have an available "in-house" remedy, members of the Court of Appeals for the District of Columbia, which promulgated that doctrine, have expressed concern as to its viability, *Humphrey v. Baker*, 848 F.2d 211, 214 (D.C. Cir. 1988), and this court therefore will not apply the doctrine.

APPENDIX C

IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF MONTANA HELENA DIVISION

CV 91-22-H-CCL

THE STATE OF MONTANA; STAN STEPHENS, Governor of the State of Montana; MARC RACICOT, Attorney General for the State of Montana; MIKE COONEY, Secretary of State for the State of Montana; MAX BAUCUS, United States Senator; CONRAD BURNS, United States Senator; PAT WILLIAMS, United States Representative; and RON MARLENEE, United States Representative, PLAINTIFFS

v.

UNITED STATES DEPARTMENT OF COMMERCE; ROBERT A. MOSBACHER, Secretary of the United States Department of Commerce; BUREAU OF THE CENSUS; BARBARA EVERITT BRYANT, Director of the Bureau of the Census; and DONNARD K. ANDERSON, Clerk of the United States House of Representatives, DEFENDANTS

JUDGMENT AND PERMANENT INJUNCTION

[Filed Oct. 18, 1991]

Pursuant to this court's opinion and order of even date,

IT IS HEREBY ORDERED, ADJUDGED, AND DECREED that 2 U.S.C. § 2a is unconstitutional and

void, and that defendants, and each and all of them, and their agents, are hereby permanently enjoined from effecting reapportionment of the United States House of Representatives under the provisions of that said statute.

The clerk is directed forthwith to notify counsel of entry of this judgment and permanent injunction.

Done and dated this 18 day of October, 1991.

/s/ Charles C. Lovell
CHARLES C. LOVELL
United States District Judge

APPENDIX D

IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF MONTANA HELENA DIVISION

Civil Action No. CV-91-22-H-CCL

THE STATE OF MONTANA; STAN STEPHENS, Governor of the State of Montana; MARC RACICOT, Attorney General for the State of Montana; MIKE COONEY, Secretary of State for the State of Montana; MAX BAUCUS, United States Senator; CONRAD BURNS, United States Senator; PAT WILLIAMS, United States Representative; and RON MARLENEE, United States Representative, PLAINTIFFS,

v.

UNITED STATES DEPARTMENT OF COMMERCE; ROBERT A. MOSBACHER, Secretary of the United States Department of Commerce; BUREAU OF THE CENSUS; BARBARA EVERITT BRYANT, Director of the Bureau of the Census; and DONNARD K. ANDERSON, Clerk of the United States House of Representatives, DEFENDANTS.

[Stamped: Filed Oct. 24, 1991]

NOTICE OF APPEAL TO THE SUPREME COURT OF THE UNITED STATES

Notice is hereby given that defendants United States Department of Commerce, Robert A. Mosbacher, the Bureau of the Census, and Barbara

50a

Everitt Bryant hereby appeal to the Supreme Court of the United States from both the final Order dated October 18, 1991, granting plaintiffs a permanent injunction in this action and the Judgment also entered on October 18, 1991. This appeal is taken pursuant to 28 U.S.C. § 1253.

Respectfully submitted,

STUART M. GERSON
Assistant Attorney General
DORIS POPPLER
United States Attorney
KRIS A. MCLEAN
Assistant U.S. Attorney
DENNIS G. LINDER
Director,
Federal Programs Branch

/s/ Sandra M. Schraibman
SANDRA M. SCHRAIBMAN

/s/ Susan L. Korytkowski
SUSAN L. KORYTKOWSKI

/s/ Mark H. Murphy
MARK H. MURPHY

/s/ Michael Jay Singer
MICHAEL JAY SINGER

51a

/s/ Michael Jay Singer
MICHAEL JAY SINGER
Attorneys,
Department of Justice
Civil Division, Room 3708
10th &
Pennsylvania Ave., N.W.
Washington, D.C. 20530
Telephone: (202) 514-5124
Attorneys for Executive
Branch Defendants

APPENDIX E

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA
HELENA DIVISION

Civil Action No. CV-91-22-H-CCL

THE STATE OF MONTANA; STAN STEPHENS, Governor of the State of Montana; MARC RACICOT, Attorney General for the State of Montana; MIKE COONEY, Secretary of State for the State of Montana; MAX BAUCUS, United States Senator; CONRAD BURNS, United States Senator; PAT WILLIAMS, United States Representative; and RON MARLENEE, United States Representative, PLAINTIFFS,

v.

UNITED STATES DEPARTMENT OF COMMERCE; ROBERT A. MOSBACHER, Secretary of the United States Department of Commerce; BUREAU OF THE CENSUS; BARBARA EVERITT BRYANT, Director of the Bureau of the Census; and DONNALD K. ANDERSON, Clerk of the United States House of Representatives, DEFENDANTS.

[Stamped Filed Oct. 24, 1991]

NOTICE OF APPEAL

Notice is hereby given that defendants United States Department of Commerce, Robert A. Mosbacher, the Bureau of the Census, and Barbara Everitt Bryant hereby appeal, pursuant to 28 U.S.C. § 1291, to the United States Court of Appeals for

the Ninth Circuit from the final Judgment and Order in the above-captioned case dated October 18, 1991, of the United States District Court for the District of Montana.

Respectfully submitted,

STUART M. GERSON
Assistant Attorney General
DORIS POPPLER
United States Attorney
KRIS A. MCLEAN
Assistant U.S. Attorney
DENNIS G. LINDER
Director,
Federal Programs Branch

/s/ Sandra M. Schraibman
SANDRA M. SCHRAIBMAN

/s/ Susan L. Korytkowski
SUSAN L. KORYTKOWSKI

/s/ Mark H. Murphy
MARK H. MURPHY

Attorneys,
Department of Justice
Civil Division, Room 3708
10th &
Pennsylvania Ave., N.W.
Washington, D.C. 20530
Telephone: (202) 514-5124
Attorneys for Executive
Branch Defendants

APPENDIX F

CONSTITUTIONAL AND STATUTORY
PROVISIONS INVOLVED

1. Article I, Section 2, Clauses 1, 2 and 3 of the United States Constitution provide:

The House of Representatives shall be composed of Members chosen every second Year by the People of the several States, and the Electors in each State shall have the Qualifications requisite for Electors of the most numerous Branch of the State Legislature.

No person shall be a Representative who shall not have attained to the Age of twenty five Years, and been seven Years a Citizen of the United States, and who shall not, when elected, be an Inhabitant of that State in which he shall be chosen.

Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers, which shall be determined by adding to the whole Number of free Persons, including those bound to Service for a Term of Years, and excluding Indians not taxed, three fifths of all other Persons.² The actual Enumeration shall be made within three Years after the first Meeting of the Congress of the United States, and within every subsequent Term of ten Years, in such Manner as they shall by Law direct. The Number of Representatives shall not exceed one for every thirty Thousand, but each State shall have at Least one Representative; and until such enumeration shall be made, the State of New Hampshire shall be entitled to

chuse three, Massachusetts eight, Rhode-Island and Providence Plantations one, Connecticut five, New-York six, New Jersey four, Pennsylvania eight, Delaware one, Maryland six, Virginia ten, North Carolina five, South Carolina five, and Georgia three.

2. Article I, Section 8, Clause 18 of the United States Constitution provides:

SECTION 8. The Congress shall have Power

* * * * *

To make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers, and all other Powers vested by this Constitution in the Government of the United States, or in any Department or Officer thereof.

3. Sections 2 and 5 of the Fourteenth Amendment of the United States Constitution provide:

SECTION 2. Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed. But when the right to vote at any election for the choice of electors for President and Vice President of the United States, Representatives in Congress, the Executive and Judicial officers of a State, or the members of the Legislature thereof, is denied to any of the male inhabitants of such State, being twenty-one years of age, and citizens of the United States, or in any way abridged, except for participation in rebellion, or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall

bear to the whole number of male citizens twenty-one years of age in such State.

* * * * *

SECTION 5. The Congress shall have power to enforce, by appropriate legislation, the provisions of this article.

4. 2 U.S.C. 2a provides:

Reapportionment of Representatives; time and manner; existing decennial census figures as basis; statement by President; duty of clerk

(a) On the first day, or within one week thereafter, of the first regular session of the Eighty-second Congress and of each fifth Congress thereafter, the President shall transmit to the Congress a statement showing the whole number of persons in each State, excluding Indians not taxed, as ascertained under the seventeenth and each subsequent decennial census of the population, and the number of Representatives to which each State would be entitled under an apportionment of the then existing number of Representatives by the method known as the method of equal proportions, no State to receive less than one Member.

(b) Each State shall be entitled, in the Eighty-third Congress and in each Congress thereafter until the taking effect of a reapportionment under this section or subsequent statute, to the number of Representatives shown in the statement required by subsection (a) of this section, no State to receive less than one Member. It shall be the duty of the Clerk of the House of Representatives, within fifteen calendar days after the receipt of such statement, to send to

the executive of each State a certificate of the number of Representatives to which such State is entitled under this section. In case of a vacancy in the office of Clerk, or of his absence or inability to discharge this duty, then such duty shall devolve upon the Sergeant at Arms of the House of Representatives; and in case of vacancies in the offices of both the Clerk and the Sergeant at Arms, or the absence or inability of both to act, such duty shall devolve upon the Doorkeeper of the House of Representatives.

(c) Until a State is redistricted in the manner provided by the law thereof after any apportionment, the Representatives to which such State is entitled under such apportionment shall be elected in the following manner: (1) If there is no change in the number of Representatives, they shall be elected from the districts then prescribed by the law of such State, and if any of them are elected from the State at large they shall continue to be so elected; (2) if there is an increase in the number of Representatives, such additional Representative or Representatives shall be elected from the State at large and the other Representatives from the districts then prescribed by the law of such State; (3) if there is a decrease in the number of Representatives but the number of districts in such State is equal to such decreased number of Representatives, they shall be elected from the districts then prescribed by the law of such State; (4) if there is a decrease in the number of Representatives but the number of districts in such State is less than such number of Representatives, the number of Representatives by which such number of districts is exceeded shall be elected from the State

at large and the other Representatives from the districts then prescribed by the law of such State; or (5) if there is a decrease in the number of Representatives and the number of districts in such State exceeds such decreased number of Representatives, they shall be elected from the State at large.

5. 13 U.S.C. 141(a) and (b) provide:

Population and other census information

(a) The Secretary shall, in the year 1980 and every 10 years thereafter, take a decennial census of population as of the first day of April of such year, which date shall be known as the "decennial census date", in such form and content as he may determine, including the use of sampling procedures and special surveys. In connection with any such census, the Secretary is authorized to obtain such other census information as necessary.

(b) The tabulation of total population by States under subsection (a) of this section as required for the apportionment of Representatives in Congress among the several States shall be completed within 9 months after the census date and reported by the Secretary to the President of the United States.

* * * * *

6. 28 U.S.C. 1253 provides:

Direct appeals from decisions of three-judge courts

Except as otherwise provided by law, any party may appeal to the Supreme Court from an order granting or denying, after notice and hearing, an interlocutory or permanent injunction in

any civil action, suit or proceeding required by any Act of Congress to be heard and determined by a district court of three judges.

7. 28 U.S.C. 2284(a) provides:

Three-judge court; when required; composition; procedure

(a) A district court of three judges shall be convened when otherwise required by Act of Congress, or when an action is filed challenging the constitutionality of the apportionment of congressional districts or the apportionment of any state-wide legislative body.

DEC 4 1991

OFFICE OF THE CLERK

In The
Supreme Court of the United States
October Term, 1991

UNITED STATES DEPARTMENT OF COMMERCE;
ROBERT A. MOSBACHER, Secretary of the United
States Department of Commerce; BUREAU OF THE
CENSUS; BARBARA EVERITT BRYANT, Director of
the Bureau of the Census; and DONNALD K.
ANDERSON, Clerk of the United States
House of Representatives,

Appellants,

vs.

THE STATE OF MONTANA; STAN STEPHENS,
Governor of the State of Montana; MARC RACICOT,
Attorney General for the State of Montana; MIKE
COONEY, Secretary of State for the State of Montana;
MAX BAUCUS, United States Senator; CONRAD
BURNS, United States Senator; PAT WILLIAMS, United
States Representative; and RON MARLENEE,
United States Representative,

Appellees.

On Appeal From the United States District Court
For The District Of Montana

MOTION TO AFFIRM

MARC RACIOT*
Attorney General
CLAY R. SMITH
Solicitor
ELIZABETH S. BAKER
Assistant Attorney General
State of Montana
Justice Building
215 North Sanders
Helena, MT 59620-1401
(406) 444-2026

*Counsel of Record

December 1991

43-56

QUESTION PRESENTED

Does the standard of equal representation for equal numbers of people under Article I, section 2 of the United States Constitution, as enunciated by this Court in *Wesberry v. Sanders*, 376 U.S. 1, 7 (1964), apply to apportionment of representatives among the several states?

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No. 91-860

In The

Supreme Court of the United States

October Term, 1991

UNITED STATES DEPARTMENT OF COMMERCE, et al.,

Appellants,

v.

THE STATE OF MONTANA, et al.,

*Appellees.*On Appeal From the United States District Court
For The District Of Montana

MOTION TO AFFIRM

Pursuant to Rule 18.6 of the Rules of this Court, the appellees move that the judgment of the United States District Court for the District of Montana be affirmed.

OPINION BELOW

The opinion of the three-judge district court is reported at 1991 WL 212525, but is not yet available in published form. It is reprinted as Appendix A to the Jurisdictional Statement filed by appellants. A memorandum opinion of the single judge addressing jurisdictional

issues is not yet reported. It is reprinted as Appendix B to the Jurisdictional Statement.

JURISDICTION

The judgment and permanent injunction were issued by the three-judge district court on October 18, 1991. A notice of appeal to this Court was filed by appellants United States Department of Commerce, Robert A. Mosbacher, Bureau of the Census and Barbara Everitt Bryant on October 24, 1991. A second notice of appeal was filed by defendant Donald K. Anderson on November 12, 1991. The jurisdiction of this Court is invoked under 28 U.S.C. § 1253.

STATEMENT OF THE CASE

On May 22, 1991, appellees filed their complaint in the United States District Court for the District of Montana and simultaneously filed a motion to convene a three-judge court and a motion for preliminary injunction. In their complaint, appellees requested the court to declare unconstitutional 2 U.S.C. § 2a and to permanently enjoin the appellants from effecting the current decennial reapportionment of the House of Representatives under that section.¹

¹ Contrary to the appellants' suggestion (J.S. at 12), appellees at no time requested the district court to order Congress to adopt the Dean method, or any other method, for the present

(Continued on following page)

Following the convening of a three-judge court, appellants moved to dismiss appellees' complaint on the grounds that it presented a nonjusticiable political question and that the appellees lacked standing to pursue their claims. Appellants also requested that the three-judge district court be dissolved.²

Appellants' motion to dismiss was denied by United States District Judge Charles C. Lovell on August 15, 1991, at which time the court set a hearing on the appellees' motion for preliminary injunction. Both parties filed motions for summary judgment and appellants moved for reconsideration by the three-judge court of their motion to dismiss and to dissolve the three-judge court. All motions were heard by the three-judge district court on September 3, 1991. Both parties submitted affidavits, but no testimony was presented.

On October 18, 1991, the three-judge court entered its opinion, concluding that 2 U.S.C. § 2a unconstitutionally

(Continued from previous page)

apportionment. Both the Dean and Adams methods were discussed by appellees for the purpose of demonstrating to the court that use of a method other than the method of equal proportions would reduce the disparity in population between congressional districts. *See infra* at 11-12.

² Contrary to their position below, appellants concede in their jurisdictional statement that the three-judge district court was properly convened and therefore maintain that this Court has jurisdiction over the appeal. (J.S. at 25-28.) Appellees agree that the Court has jurisdiction to entertain the appeal and, even if the Court finds the three-judge district court was improperly convened, do not oppose the granting of appellants' petition for a writ of certiorari filed in *Department of Commerce v. Montana*, No. 91-859.

deprived appellees of equal representation as demanded by Article I, section 2, of the United States Constitution. (J.S. App. 19a.)³ The district court concluded that "Article I, Section 2 imposes upon Congress the same duty to 'meet the standard of equal representation for equal numbers of people as nearly as is practicable,' . . . when apportioning Congressional districts that it imposes upon state legislatures." (*Id.* at 12a.) The method of equal proportions specified by law, the court held, fails to pass constitutional muster under that standard. (*Id.* at 15a.) The court entered a final judgment, declaring 2 U.S.C. § 2a unconstitutional and void and permanently enjoining the defendants and their agents from effecting reapportionment of the United States House of Representatives under the provisions of that statute. (*Id.* at 47a-48a.)

ARGUMENT

The district court correctly concluded that the "high standard of justice and common sense" established by the framers of the Constitution in Article I, section 2 imposes upon the United States Congress the requirement that apportionment of representatives among the states achieve, as nearly as is practicable, "equal representation for equal numbers of people." *Karcher v. Daggett*, 462 U.S. 725, 730 (1983). Because the method of equal proportions

³ All three judges concluded that the three-judge district court was properly convened, that appellees had standing, and that the appellees' claims were justiciable. Circuit Judge Diarmuid F. O'Scannlain dissented from the court's holding on the merits.

specified in 2 U.S.C. § 2a does not use district population as the standard upon which apportionment is to be determined, it does not best achieve this standard. "If the Federal Constitution intends that when qualified voters elect members of Congress each vote be given as much weight as any other vote, then this statute cannot stand." *Wesberry v. Sanders*, 376 U.S. 1, 7 (1964).

1(a). Sections 1 and 2 of Article I are the product of the Great Compromise reached by the delegates to the 1787 Constitutional Convention. The bicameral Congress provided for in the Constitution reflects the delegates' decision that "in one branch the people, ought to be represented; in the other, the States." 3 *The Records of the Federal Convention of 1787* 462 (Farrand ed. 1911) (quoting delegate William Samuel Johnson of Connecticut) (emphasis in original). It is clear from the debates that the delegates intended to create a national legislature in which the several states of the union would be equally represented in one body and the people of the United States equally represented in the other. As noted by George Mason of Virginia, the larger branch of Congress "was to be the grand depository of the democratic principle of the Govt." *Id.* at 48.

In its first opportunity to address the meaning of Article I, section 2 in light of the historical underpinnings of the bicameral Congress, this Court concluded that the Constitution requires "that as nearly as is practicable one man's vote in a congressional election is to be worth as much as another's." *Wesberry*, 364 U.S. at 7-8. Reviewing the debates of the Constitutional Convention, the Court observed that central to the framers' fundamental ideas of democratic government was their design that "it was

population which was to be the basis of the House of Representatives." *Id.* at 9. Because " 'numbers of inhabitants' should always be the measure of representation in the House of Representatives," the Court affirmed in *Wesberry* that the House "was to represent the people as individuals, and on a basis of complete equality for each voter." *Id.* at 13-14. Accordingly, the Court held that it is incumbent upon the states to draw congressional districts to meet the Constitution's "plain objective of making equal representation for equal numbers of people the fundamental goal for the House of Representatives." *Id.* at 18.

(b). Since *Wesberry*, this Court's decisions regarding apportionment of congressional districts have reaffirmed that population equality between districts is "the preeminent, if not the sole, criterion" by which the constitutionality of an apportionment is judged. *Chapman v. Meier*, 420 U.S. 1, 23 (1975). Under the "one person, one vote" standard, congressional districts must be apportioned "to achieve population equality 'as nearly as is practicable.'" *Karcher*, 462 U.S. at 730. This test requires that unless population disparities among congressional districts are shown to have resulted despite a good-faith effort to achieve precise mathematical equality, the state must justify each variance, "no matter how small." *Kirkpatrick v. Preisler*, 394 U.S. 526, 530-31 (1969). The Court has refused to adopt a *de minimis* standard for population variations, opining that "[a]s between two standards - equality or something less than equality - only the former reflects the aspirations of Art. I, § 2." *Karcher*, 462 U.S. at 732.

Although this Court has not had occasion to consider the application of Article I, section 2 to apportionment of

representatives by the Congress, the district court concluded that the "one person, one vote" standard applies with equal force in this situation. The district court found noteworthy this Court's observation that " 'when the delegates agreed that the House [of Representatives] should represent 'people' they intended that . . . the number [of Congressional seats] assigned to each State should be determined solely by the number of the State's inhabitants.' " (J.S. App. at 7a.) (quoting *Wesberry*, 376 U.S. at 13) (emphasis added).⁴ In short, drawing from the constitutional debates over how seats should be apportioned to states, the court agreed with appellees' position that "there is no principled reason why the standards set forth in *Wesberry* should not apply to the apportionment of representatives by Congress, despite this mathematical impossibility." (*Id.* at 9a.)⁵ The district court then held:

⁴ This passage from *Wesberry* underscores the goal of the framers, in requiring that representatives be apportioned to the states "according to their respective numbers," to establish a system of apportionment based upon actual population of each congressional district. Their intention in this regard is further evidenced by the very language of Article I, section 2, clause 3, in which the maximum ratio of one representative for every 30,000 people is established. There is no textual basis, as appellants suggest, upon which to distinguish the duties of state legislatures, as implied from clause 1, from the duties of the United States Congress, as expressed in clause 3. In either case when viewed in its historical context, the overriding purpose of Article I, section 2 is to ensure that, once the number of congressional positions is determined, they be apportioned among the States so as to guarantee, to the greatest extent possible, that all members represent equal numbers of persons.

⁵ The "mathematical impossibility" referred to by the district court occurs "because Congress must adhere to existing

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Article I, Section 2 provides no textual basis upon which to distinguish the duties of Congress from the duties of the state legislatures in this regard. Article I as a whole concerns the powers and responsibilities of the federal legislative branch, rather than state legislatures. The plain language of Article I, Section 2 specifically refers to apportionment among the several states. Clearly, any duty imposed upon state legislatures by Article I, Section 2 is also imposed upon Congress.

(*Id.*)

The district court's conclusion is well-grounded in history and in the text of the Constitution itself. Equal representation for equal numbers of people is the foundation of the House of Representatives. When distilled to its essence, the debate over Article I, section 2, elucidates the framers' intent that each member of the House be a voice in the national legislature for the same number of inhabitants. "The purpose of [Article I, section 2] is obvious: It is to make the votes of the citizens of the several States equally effective in the selection of members of Congress. It was intended to make illegal a nation-wide 'rotten borough' system as between the States." *Colegrove v. Green*, 328 U.S. 549, 570 (1946) (Black, J., dissenting). Strict standards for drawing congressional district boundaries at the state level are meaningless to the right to participate equally in elections if the same standards do not govern apportionment by Congress.

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state boundaries and each state must have at least one representative." (J.S. App. at 9a.)

2(a). The method of equal proportions, selected by Congress in 1941 as the method to be used in apportioning representatives, was not designed to, and does not, achieve the minimum difference in the *absolute* population of each congressional district. As acknowledged by appellants, the objective of the method of equal proportions (the "Hill" method) is to minimize the *relative* difference between the number of persons per representative and between each person's share of a representative. (J.S. at 10.) In other words, the Hill method minimizes the percentage difference in the ratio or proportion of representation in the House among all possible pairs of states. (Motion App. at 12.)

The method of harmonic means (the Dean method), on the other hand, is expressly designed to – and does – minimize the absolute difference between the numbers of persons per representative among all possible pairs of States. (J.S. at 9.) This method "most nearly equalizes the average population per district if the inequality is measured by the absolute difference." L.F. Schmeckebier, *Congressional Apportionment* 60 (1941). Thus,

it is the Dean solution that minimizes the inequality between states, if inequality is measured in terms of the *absolute difference* in persons per representative. . . . This is because Dean's method finds a common divisor x . . . and an assignment of seats to each state which makes the number of persons per representative closest to x . A transfer of a seat between two States will therefore move the number of persons per representative further away from x in both States, and so will increase their absolute difference. Dean's method can

therefore also be described as the one that makes the inequality between any two states as small as possible if inequality is measured as the absolute difference in persons per representative.

M. Balinski & H. Young, *Fair Representation: Meeting the Ideal of One Man, One Vote* 49 (1982) (emphasis in original).

Although appellants emphasize "quota" and "share in a representative" in support of their argument that Congress's decision to adopt the Hill method should be respected, these are inappropriate factors upon which to rely exclusively in conducting reapportionment in view of the meaning of the "one person, one vote" standard applied by this Court. Notwithstanding the mathematical studies commissioned by Congress or the various principles upon which each method is based, the overriding constitutional standard requires equal representation for equal numbers of people – a standard which only the Dean method (of the five "divisor" methods) uses to calculate apportionment. Notably, the equal proportions method was adopted by Congress more than 20 years before this Court's decision in *Wesberry*. Congress has not since examined reapportionment using population per district as the measure of equality.⁶

⁶ Far from a considered judgment after careful review of all the facts, it has been suggested that "political expediency had a heavier hand" in the adoption of the Hill method by Congress. M. Balinski & H. Young, *supra* at 71. "A peculiar combination of professional rivalry, scientific error, and political accident seems to have decided the issue." *Id.* at 77.

(b). Applying the method of equal proportions to the 1990 Census tabulations, the United States Department of Commerce determined that the State of Montana was entitled to receive one representative beginning in the 103rd Congress. On January 16, 1991, the Clerk of the House of Representatives transmitted to the Governor of Montana the Certificate of Entitlement, notifying the State that it was entitled to one representative. (Motion App. at 10.) This marks the first time since 1910 that Montana will have only a single representative. With a population of 803,655, Montana will become a congressional district 40 percent larger than the ideal district size of 572,466. (Motion App. at 14.)⁷ Moreover, use of the equal proportions method results in an overall deviation from the ideal of 61 percent, with a disparity between the largest and the smallest district of 347,680 persons. (*Id.*)

If the Dean method were applied to the 1990 Census tabulations, Montana would receive two representatives and the State of Washington would receive eight instead of nine. (J.S. at 12.) The overall disparity between the largest and smallest districts would drop to 298,171 persons, representing a total range of 52 percent from the ideal district size. (Motion App. at 14.)

Under the Hill method, Montana's congressional district would contain 231,189 persons (40.4 percent) more

⁷ The mathematically ideal district is determined by dividing the number of members in the House (435) into the 1990 apportionment population of the United States (249,022,783). (Motion App. at 13.)

than the ideal district. Washington's districts would contain 29,361 persons fewer (5.1 percent) than the ideal district. Under the Dean method, however, Montana's districts would be 29.8 percent smaller (170,638 persons) than the ideal, whereas Washington's districts would be 6.7 percent larger (38,527 persons) than the ideal. Application of the Dean method reduces the disparity and minimizes the difference in number of persons per representative.

Using this illustration, the district court concluded that appellees had met their burden of proving that the amount of disparity in district sizes under the existing reapportionment scheme is not unavoidable. (J.S. App. at 15a.) Relying on this Court's reapportionment decisions, the district court further concluded that appellants could not justify the disparity "based on Congress' past 'considerations of practical politics.'" (*Id.* at 17a) (quoting *Kirkpatrick v. Preisler*, 394 U.S. at 533).

(c). In his dissent, Judge O'Scannlain mistakenly concluded that the appellees had failed to prove that the Dean method minimized absolute population variances. Importantly, however, the dissent recognized that the right to vote has "fundamental" status under the Constitution and, accordingly, that the court's inquiry must center on whether disparities in voting power are "unnecessary." (J.S. App. at 22a.) Judge O'Scannlain therefore agreed that the *Karcher* standard, requiring the plaintiffs to assume the initial burden of showing that population differences among districts "'were not the result of a good faith effort to achieve equality' and could have been avoided by use of a different districting plan," was applicable. (*Id.* at 23a.)

Judge O'Scannlain nonetheless concluded that appellees had failed to sustain this burden. This conclusion was based on several erroneous assumptions. First, the dissent compared only the relative difference between Washington's districts and Montana's districts, rather than comparing both to the ideal as is required under the *Karcher* and *Wesberry* analysis. (J.S. App. at 29a.) Second, the dissent aggregated the district populations for each state to arrive at the conclusion that the Dean method did not produce more equitable results than the Hill method. (*Id.* at 29a-30a.) Thus, Judge O'Scannlain predicated his determination on *state* population, rather than on *district* population, again departing from the "one person, one vote" analysis and disregarding the historical context of a "national legislature." Finally, the dissent incorrectly assumed that mathematical variance equated with population disparity. (*Id.* at 30a.) Mathematical variance, however, as reflected in the declaration of Lawrence Ernst submitted below, the appellants' own expert, is not the same as population variance as that term has been used in the reapportionment cases. (Ernst Decl. at 13.) Appellants also have agreed that application of the Dean method results in a smaller difference in absolute district size. (*Id.* at 11.)

3. Appellants argue that, notwithstanding the fact that the disparity between population per congressional district could be reduced by application of the Dean method, the Court should not engage in such an analysis because Congress has "plenary power" to determine the appropriate method of apportionment. (J.S. at 18.) Appellants concede, however, that the determinations of Congress in this regard are not entirely unreviewable. (*Id.* at

19.) They argue that, as long as Congress has acted reasonably or rationally, the Court may not review its decision. (*Id.* at (i), 19-20.)

The appellants' position in this regard differs from that advanced before the district court. Below, they relied on each of the political-question factors identified in *Baker v. Carr*, 369 U.S. 186, 217 (1962), as grounds for finding a nonjusticiable controversy without reference to whether Congress had acted reasonably or unreasonably. In the Jurisdictional Statement, they make reference only to the first three of those factors and further concede that not "all matters concerning the apportionment of Representatives among the States present nonjusticiable political questions." (J.S. at 19; emphasis in original.) While the appellants' district court position was extreme and rightly rejected by the entire panel, it at least maintained fidelity with the concept underlying the political-question doctrine; i.e., there exists a class of congressional decisionmaking which, irrespective of its seeming fairness or unfairness, is outside the scope of judicial review. See Henkin, *Is There A "Political Question" Doctrine?*, 85 Yale L. J. 597, 599 (1976). The appellants' present, hedged posture assumes the only limitation imposed on congressional apportionment of House seats, the specific restrictions in Article I, section 2 aside, is that the apportionment be reasonably related to state population. This assumption, however, lies at the core of the parties' substantive disagreement. The appellants therefore subordinate the political-question determination to resolution of the merits and effectively, if not rhetorically, abandon the justiciability issue.

4. Since this Court's decision in *Dunn v. Blumstein*, 405 U.S. 330 (1972), it cannot be questioned that "a citizen

has a constitutionally protected right to participate in elections on an equal basis with other citizens in the jurisdiction." *Id.* at 336. Consequently, infringement of that protected right must be accorded strict scrutiny and must be shown by the defendants to be "'necessary to promote a compelling state interest.'" *Id.* at 337 (emphasis in original) (quoting *Kramer v. Union Free School District No. 15*, 395 U.S. 621, 627 (1969)). "In other words, the right to vote is accorded extraordinary treatment because it is, in equal protection terms, an extraordinary right: a citizen cannot hope to achieve any meaningful degree of individual political equality if granted an inferior right of participation in the political process.'" *Plyler v. Doe*, 457 U.S. 202, 233 (Blackmun, J., concurring).

Instantly, the reapportionment of the United States House of Representatives has impaired the right of Montana citizens to exercise their electoral franchise on equal footing with voters in other congressional districts. Congress is not immune from scrutiny when it has transgressed constitutional restrictions and violated the fundamental voting rights of Montana citizens.⁸

⁸ Appellants make the suggestion that the district court's judgment somehow does not apply to the 103rd Congress. (J. S. at 24 n.19.) They suggest that because the certificates of entitlement have been issued to the states, nothing more remains to be done to "effect" reapportionment and therefore the judgment can have no effect until reapportionment in the year 2000. Appellants overlook several important points in making this proposition.

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First, it has long been established that "[a]n unconstitutional act is not a law; it confers no rights; it imposes no duties; it affords no protection; it creates no office; it is, in legal contemplation, as inoperative as though it had never been passed." *Norton v. County of Shelby*, 118 U.S. 425, 442 (1886). See also *United States v. Munoz-Flores*, 863 F.2d 654, 661 (9th Cir. 1988), *rev'd on other grounds*, 495 U.S. 385 (1990). Although this rule is tempered when rights have vested or prior determinations have become final and been acted upon accordingly, *Chicot County Drainage Dist. v. Baxter State Bank*, 308 U.S. 371, 374 (1940), those considerations are not present here. Rights have not vested, since representatives will not be elected until November 1992. Furthermore, the reapportionment will not be complete until those representatives are elected and sworn. See 14 Op. Att'y Gen. 406, 408 (1874) (representative not regarded as holding office for any purpose until oath of office is taken); 2 U.S.C. §§ 25, 26 (oath of office, roll of representatives-elect).

Second, the declaratory judgment of the district court should be construed and given effect in accordance with its language. Cf. *Gonzalez v. Bowie*, 123 F.2d 387, 391-92 (1st Cir. 1941); *American Indemnity Co. v. Davis*, 260 F.2d 440, 443-44 (5th Cir. 1958). Had appellees sought no more than precedent for the next reapportionment, the federal court would have lacked jurisdiction even to consider the issue. *Crowley Cutlery Co. v. United States*, 849 F.2d 273, 275 (7th Cir. 1988). It is unmistakably the decision of the district court that going forward with the current reapportionment based on 2 U.S.C. § 2a will violate the fundamental voting rights of appellees and of all Montana voters. The court declared section 2a "unconstitutional and void" on the basis of its finding that Montanans' constitutional rights have been violated. While the language of the final judgment may not literally provide coercive relief, the only way to give effect to the plain language of the court's findings is to void the certificates of entitlement issued in January 1991. Appellants also concede that the district court is empowered to grant additional coercive relief upon request to enforce the rights declared in its judgment. 28 U.S.C. § 2202.

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CONCLUSION

Appellees concur with appellants' request that the Court note probable jurisdiction, but request the Court to affirm the judgment of the district court.

Respectfully submitted,

MARC RACICOT*

Attorney General

CLAY R. SMITH

Solicitor

ELIZABETH S. BAKER

Assistant Attorney General

State of Montana

Justice Building

215 North Sanders

Helena, MT 59620-1401

(406) 444-2026

*Counsel of Record

December 1991

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Finally, and as a practical matter, the effect of the appellants' argument is that appellees waited too long to bring this action by not instituting it prior to the issuance of the certificates of entitlement. This contention proves too much and illuminates one of the difficulties with 2 U.S.C. § 2a. Because the statute provides no opportunity for judicial review, appellees were required to seek a declaratory judgment, invoking the district court's federal question jurisdiction. Had the suit been filed prior to issuance of the certificate of entitlement, appellees could have alleged no specific injury and would have risked certain dismissal for lack of standing. Yet, by filing the case after the certificates were issued, appellees are subjected to the argument that they delayed improperly. If appellants' view were credited, there would never be an opportunity for the appellees to seek redress.

APPENDIX A

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA
HELENA DIVISION

THE STATE OF MONTANA; STAN) Cause No.
STEPHENS, Governor of the State) CV-91-22-H-CCL
of Montana; MARC RACICOT,)
Attorney General for the State of)
Montana; MIKE COONEY,)
Secretary of State for the State of)
Montana; MAX BAUCUS, United)
States Senator; CONRAD BURNS,)
United States Senator; PAT)
WILLIAMS, United States)
Representative; and RON)
MARLENEE, United States)
Representative,)
)
Plaintiffs,)
)
-v-)
)
UNITED STATES DEPARTMENT)
OF COMMERCE; ROBERT A.) COMPLAINT
MOSBACHER, Secretary of the) FOR
United States Department of) DECLARATORY
Commerce; BUREAU OF THE) AND
CENSUS; BARBARA EVERITT) INJUNCTIVE
BRYANT, Director of the Bureau of) RELIEF
the Census; and DONNALD K.) (Filed
ANDERSON, Clerk of the United) May 22, 1991)
States House of Representatives,)
)
Defendants.)

COME NOW the Plaintiffs, by and through their counsel the Attorney General of the State of Montana, and for their complaint against the Defendants allege as follows:

JURISDICTION AND VENUE

1. This action arises under Article I, section 2 of the United States Constitution, and under the laws of the United States pertaining to the apportionment of representatives in the United States House of Representatives, 2 U.S.C. § 2a and 13 U.S.C. § 141.

2. The court has jurisdiction of this action pursuant to 28 U.S.C. §§ 1331 and 1343. Declaratory and injunctive relief may be granted by this court as authorized by 28 U.S.C. §§ 2201 and 2202.

3. Venue is proper in this district pursuant to 28 U.S.C. § 1391(e)(4), since all plaintiffs reside in the District of Montana.

4. A three-judge court is appropriate to hear and determine this action pursuant to 28 U.S.C. § 2284(a).

PARTIES

5. Plaintiff State of Montana is a sovereign state of the United States. The State is entitled to a number of Representatives in Congress pursuant to Article I, Section 2, Clause 3 of the Constitution, as amended by section 2 of the Fourteenth Amendment, apportioned according to the number of people within the State. The State has received official notice that the number of representatives to which it is entitled in the United States House of Representatives will be reduced from two to one, thereby

also reducing Montana's Electoral College votes in future presidential elections.

6. Plaintiff Stan Stephens is the Governor and chief executive officer of the State of Montana, and is a qualified and registered voter in the state of Montana.

7. Plaintiff Marc Racicot is the Attorney General and chief legal officer of the State of Montana, and is a qualified and registered voter in the state of Montana.

8. Plaintiff Mike Cooney is the Secretary of State and chief elections officer of the State of Montana, and is a qualified and registered voter in the state of Montana.

9. Plaintiffs Stephens, Racicot and Cooney are charged with upholding the election laws of Montana and with protecting the voting rights of Montana citizens under the laws and constitutions of the State of Montana and the United States, and bring this claim on behalf of all voters of the state of Montana.

10. Plaintiffs Max Baucus and Conrad Burns are United States Senators for the State of Montana, and are qualified and registered voters in the State of Montana.

11. Plaintiffs Pat Williams and Ron Marlenee are United States Representatives for the State of Montana, and are qualified and registered voters in the State of Montana.

12. Defendant United States Department of Commerce is an executive agency of the United States Government.

13. Defendant Robert A. Mosbacher is the Secretary of the United States Department of Commerce and is

responsible, pursuant to 13 U.S.C. § 141, for taking a decennial census of the population and for reporting the results of the census and the calculated reapportionment to the President of the United States.

14. Defendent [sic] Bureau of the Census is an agency within the United States Department of Commerce, and has been delegated the duty of conducting the decennial census of the population of the United States.

15. Defendant Barbara Everett Bryant is the Director of the Bureau of the Census and is responsible for the taking of the decennial census.

16. George Herbert Walker Bush is the President of the United States and, pursuant to 2 U.S.C. § 2a(a), is responsible for transmitting to the Congress a statement showing the whole number of persons in each state, as ascertained under the decennial census of the population, and the number of representatives to which each state is entitled under the apportionment calculated by the Department of Commerce.

17. Defendant Donald K. Anderson is the Clerk of the United States House of Representatives and, pursuant to 2 U.S.C. § 2a(b), is responsible for notifying each state of the number of representatives in Congress to which it is entitled in accordance with the statement transmitted by the President. Pursuant to that authority, Defendant Anderson has issued a Certificate of Entitlement to the State of Montana that it is entitled to one (1) representative in the United States House of Representatives. (Attachment A.)

FIRST CLAIM FOR RELIEF

18. Article I, section 2 of the United States Constitution, as amended by section 2 of the Fourteenth Amendment, requires that "[r]epresentatives [in the United States House of Representatives] shall be apportioned among the several States . . . according to their respective Numbers." This section requires equal representation for equal numbers of people, and imposes a standard of "one person, one vote" in determining apportionment among the states.

19. The standard of equal representation for equal numbers of people requires use of a method of apportionment which results in the least amount of disparity in district size. The present method required by 2 U.S.C. § 2, known as the "Hill method" or "method of equal proportions," does not achieve the greatest possible equality in the number of individuals per representative, and use of that method has caused the impending loss of one congressional seat to the State of Montana.

20. The 1990 population of the United States, as determined by the Bureau of the Census, is 249,632,692. The apportionment population is 249,022,783. Based on a House size of 435 members, the ideal district size is 572,466 persons.

21. The 1990 apportionment population of Montana, as determined by the Bureau of the Census, is 803,655. As a single representative district, Montana will be the largest single district represented in the United States House of Representatives, and its district size will be more than 40 percent larger than the ideal district.

22. The disparity in district size diminishes the voting power of the named plaintiffs and of all other qualified and registered voters of the state of Montana, and violates the standard, guaranteed by Article I, section 2 of the United States Constitution, of equal representation for equal numbers of people.

SECOND CLAIM FOR RELIEF

23. Plaintiffs reallege paragraphs 18 through 22, and incorporate the same by reference as though fully set forth herein.

24. From 1790 until 1911, each reapportionment of the House of Representatives was effected after consideration and determination by Congress. In 1911, the Sixty-second United States Congress enacted a reapportionment act which set the size of the House of Representatives at 433 members, with the proviso that if Arizona and New Mexico became states before apportionment under the next decennial census, each would be entitled to one representative in addition to that fixed number. The size of the House has not changed since the two seats given to the states of Arizona and New Mexico brought the total membership to 435.

25. Section 2a of Title 2, United States Code, provides for a process by which the Bureau of the Census applies a mathematical formula to the total apportionment population to determine the number of representatives to which each state shall be entitled until the next decennial reapportionment, based upon a fixed House size of 435 members.

26. Plaintiffs Baucus, Burns, Williams, and Marlenee, as members of the Congress of the United States, have the right to participate and vote on legislation in a manner defined by the Constitution.

27. The statutory scheme by which reapportionment is determined provides for no consideration or determination by Congress of the apportionment of the House of Representatives.

28. This "automatic" method for determining apportionment violates the requirement of Article I, section 2 of the United States Constitution that Congress make every good faith effort to determine the apportionment of the House of Representatives according to the whole numbers of people in the respective states to achieve, as near as is possible, equal representation for equal numbers of people and, as applied to the 1990 Census, has deprived the named plaintiffs and all Montana voters of their right to equal representation.

29. By effecting reapportionment of the House of Representatives through application of a mathematical formula by the Department of Commerce and the automatic transmittal of the results to the states with no opportunity for review by Congress, section 2a of Title 2, United States Code, has deprived plaintiffs Baucus, Burns, Williams, and Marlenee of their right to vote on the 1991 reapportionment of the House of Representatives, and violates their right to have all laws made in the manner prescribed under the general lawmaking provisions of Article I, section 7 of the United States Constitution.

WHEREFORE, having set forth herein their claims against the defendants, plaintiffs pray for relief as follows:

1. That a three-judge court be convened to hear this action.
2. That the court declare section 2a of Title 2, United States Code, unconstitutional.
3. That the defendants be preliminarily and permanently enjoined from effecting reapportionment of the House of Representatives under the provisions of section 2a of Title 2, United States Code.
4. That the court award plaintiffs such further relief as it deems just and proper under the circumstances.

Respectfully submitted this 22nd day of May, 1991.

/s/ Marc Racicot
MARC RACICOT
Attorney General
State of Montana
Justice Building
215 North Sanders
Helena MT 59620-1401

/s/ Clay R. Smith
CLAY R. SMITH
Solicitor

/s/ Elizabeth S. Baker
ELIZABETH S. BAKER
Assistant Attorney General

Donnald K. Anderson
Clerk

Dallas L. Dendy, Jr.
Assistant to the Clerk.

**OFFICE OF THE CLERK
U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, DC 20515-6601**

January 16, 1991

Honorable Stan Stephens
Governor
State Capitol
Helena, Montana 59620

Dear Governor Stephens:

Pursuant to the provisions of Section 2a(b) of Title 2 of the United States Code, I am hereby transmitting you a certificate stating the number of Representatives to which your state is entitled in the United States House of Representatives.

Because of pending litigation with respect to the current census I am also notifying you that population counts which form the basis of the number of Representatives set forth herein are subject to possible correction for undercount or overcount. The Department of Commerce is considering whether to correct counts and will publish corrected counts, if any, not later than July 15, 1991.

Sincerely yours,

/s/ Donnald K. Anderson
DONNALD K. ANDERSON,
Clerk
U.S. House of Representatives

Certificate of Entitlement

SEAL

HOUSE OF REPRESENTATIVES
OFFICE OF THE CLERK
WASHINGTON, D.C.

I, Donald K. Anderson, Clerk of the House of Representatives of the United States, Hereby Certify, Pursuant to the Provisions of Title 2, United States Code, Section 2a (b), That the State of

MONTANA

Shall be Entitled, in the One Hundred Third Congress and in Each Congress Thereafter Until a Subsequent Reapportionment Shall Take Effect Under Applicable Statute, to

ONE REPRESENTATIVE

in the House of Representatives of the Congress of the United States.

SEAL *In Witness Whereof I hereto Affix My Name and the Seal of the House of Representatives of the United States of America this Sixteenth Day of January, Anno Domini 1991, in the City of Washington, District of Columbia*

/s/ Donald K. Anderson
CLERK OF THE HOUSE OF
REPRESENTATIVES OF THE
UNITED STATES

ATTACHMENT A - PAGE 2

APPENDIX B

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA
HELENA DIVISION

THE STATE OF MONTANA; STAN) Cause No.
STEPHENS, Governor of the State) CV-91-22-H-CCL
of Montana; MARC RACICOT,)
Attorney General for the State of)
Montana; MIKE COONEY,)
Secretary of State for the State of)
Montana; MAX BAUCUS, United)
States Senator; CONRAD BURNS,)
United States Senator; PAT)
WILLIAMS, United States)
Representative; and RON)
MARLENEE, United States)
Representative,)

Plaintiffs,)

-v-)

UNITED STATES DEPARTMENT)
OF COMMERCE; ROBERT A.) AFFIDAVIT OF
MOSBACHER, Secretary of the) KENNETH J.
United States Department of) TIAHRT
Commerce; BUREAU OF THE)
CENSUS; BARBARA EVERITT) (Filed
BRYANT, Director of the Bureau of) May 22, 1991)
the Census; and DONNALD K.)
ANDERSON, Clerk of the United)
States House of Representatives,)
Defendants.)

STATE OF MONTANA)
 : ss
 County of Gallatin)

Kenneth J. Tiahrt, being first duly sworn, upon his oath deposes and says:

1. I am head of the Department of Mathematical Sciences at Montana State University and have the qualifications set forth in my *curriculum vitae*, a copy of which is appended hereto as Exhibit A.

2. In connection with this litigation, I have reviewed the data compiled by the United States Bureau of the Census for the 1990 population of the United States and also have reviewed the Bureau's calculations for the resulting reapportionment of the United States House of Representatives under the method of equal proportions (the "Hill" method).

3. I have also reviewed the calculations prepared by the Montana Department of Justice for reapportionment of a 435-member House of Representatives using the Hill method, the Dean method and the Adams method.

4. The Hill method is based upon the following principle: Given a specific membership size of the House of Representatives to be apportioned, each state should have a number of seats so that no transfer of any one seat can reduce the *percentage* difference in representation between those states. The objective of the Hill method is to minimize the percentage difference in the ratio or proportion of representation in the House among all possible pairs of States.

5. The Dean method is based upon the following principle: Given a specific membership size of the House of Representatives to be apportioned, find a divisor x so that the whole numbers which make the average constituencies of the states closest to x add up to the required total, and give to each state its whole number. This is equivalent to giving to each state a number of seats so that no transfer of any one seat can reduce the absolute difference in representation between those states. The objective of the Dean method is to apportion the seats in the House of Representatives to result in the smallest absolute difference between number of persons per representative. The Dean method is also known as the method of harmonic means.

6. The Adams method is based upon the following principle: Given a specific membership size of the House of Representatives to be apportioned, find a divisor x so that the smallest whole numbers containing the quotient of the states add up to the required total, and give to each state its whole number. The objective of the Adams method is to assign representation to the states that will result in the smallest absolute "representation surplus." The Adams method is also known as the method of smallest divisors.

7. Based upon a 1990 apportionment population of 249,022,783, and a House of Representatives size of 435 members, the mathematically ideal district would consist of 572,466 persons.

8. Using the Hill method, apportionment of a 435-member House of Representatives based upon the 1990 census figures presently available results in the smallest

district being the State of Wyoming, with a population of 455,975, and the largest district being the State of Montana, with a population of 803,655.

9. Using the Dean method, apportionment of a 435-member House of Representatives based upon the 1990 census figures presently available results in the smallest district being in the State of Montana, with a population per district of 401,827, and the largest district being the State of South Dakota, with a population of 699,999.

10. Using the Adams method, apportionment of a 435-member House of Representatives based upon the 1990 census figures presently available results in the smallest district being in the State of North Dakota, with a population per district of 320,682, and the largest district being in the State of North Carolina, with a population per district of 605,239.

11. Using the Hill method, there is a disparity between the largest and the smallest district of 347,680 persons, giving a range or dispersion amounting to 61% of the ideal district size of 572,466 persons. Under this method, Montana's single district is 40% larger than the ideal district size. Using the Dean method, there is a disparity between the largest and smallest districts of 298,171 persons, giving a range or dispersion amounting to 52% of the ideal district size. Using the Adams method, there is a disparity between the largest and the smallest district of 284,557 persons, giving a range or dispersion amounting to 50% of the ideal district size.

12. As illustrated by the box-whisker graph attached hereto as Exhibit B, the Hill method results in a

larger range or disparity between district sizes than either the Dean method or the Adams method.

13. Of the three methods examined, the Dean method produces the smallest variance or standard deviation. The Adams method, though it produces the smallest range, results in a larger standard deviation because it results in a greater number of districts that are far from the actual mean. This is not a violation of the principle of representative districts that are as close as possible in constituency size.

14. It is my opinion that the objective of having an equal number of individuals represented by one member of Congress is best served by a method under which the size of each district most closely approximates the ideal district size. Given the resulting disparity in district sizes, the Hill method does not meet this objective. The Dean method best accomplishes the goal of creating districts closest to the ideal district size, while the Adams method results in the least amount of disparity in overall range between the largest and the smallest districts.

Dated this 18 day of May, 1991.

/s/ K. J. Tiahrt
KENNETH J. TIAHRT

Subscribed and sworn to before me this 18th day of May, 1991.

(SEAL)

/s/ Linda S. Paulsen
Notary Public
State of Montana
Residing at Helena
My Commission expires
4-22-92

Montana State University Faculty Vita
Department of Mathematical Sciences

Kenneth J. Tiaht
Professor of Statistics
Head, Department of Mathematical Sciences
Director, Statistical Center

- EDUCATION:** Ph. D., Mathematics/Statistics, Oklahoma State University, 1967.
 M.S., Mathematics, Kansas State University, 1959.
 B.S., Mathematics/Physics, Augustana (South Dakota), 1957.
- EXPERIENCE:** 1976- Professor, Department of Mathematical Sciences, Montana State University, Bozeman, Montana.
- 1970-1976 Associate Professor, Department of Mathematical Sciences, Montana State University, Bozeman, Montana.
- 1967-1970 Assistant Professor, Department of Mathematical Sciences, Montana State University, Bozeman, Montana.
- 1964-1967 Graduate Assistant, Oklahoma State University.
- 1959-1964 Assistant Professor, Dana College (Nebraska).
- 1957-1959 Graduate Assistant, Kansas State University.

PH.D. THESES
DIRECTED:

Dennis Brady, "Elimination of Continuous Variates Used in Classification and Discrimination when Both Binary and Continuous Variables are Present," 1976.

Charles Shaffer, "Estimation of Commutative Totals, 1976.

James Hansen, "One at a Time Plans for 2^p Factor Sequencing Designs," 1974.

Reider Peterson, "Ratio Estimation in Randomized Response Designs," 1974.

Roy Byrd, "A Multivariate Runs Statistics," 1970.

Richard Schwaller, "A Method of Constrained Randomization for

$P_1^{n_1} \dots P_k^{n_k}$ factorials, 1970

REFERRED

PUBLICATIONS: "A method of constrained randomization for

$P_1^{n_1} P_2^{n_2} \dots P_k^{n_k}$ factorials," *Annals of Statistics*, Vol. 3, 1975.

"Importance of timing spore concentrations and spore levels in applications of *Nosema Locustae* for control of grasshoppers," *Journal of Invertebrate Pathology*, Vol. 21, 1973.

"Randomization for 2^{n-p} factorials in sequential experiments," *Journal of Qual. Technology*, Vol. 3, 1971.

"A method of constrained randomization for 2ⁿ factorials, *Technometrics*, Vol. 12, 1970.

**TEACHING
AWARDS AND
HONORS:**

NSF Science Faculty Fellowship, 1964-1966.

**PUBLIC
SERVICE:**

American Statistical Association Committee on Prizes and Awards, 1985-1986.

American Statistical Association Building & Development Committee, 1982-1983.

Chairman, Council, American Statistical Association, 1982 (Vice-Chair, 1981).

Constitution Committee, American Statistical Association, 1980.

Lecturer, American Statistical Association Visiting Lecturer Program, 1976-.

Various statistical consultation projects with such state agencies as: Highway Safety, Board of Crime Control, Maternal and Child Health, Superintendent of Public Instruction, Fish Wildlife and Parks, Post Secondary Review Commission, and various city and county government study commissions.

**PROFESSIONAL
MEMBERSHIPS:**

American Statistical Association Montana Chapter, American Statistical Association (organizing officer)

Pi Mu Epsilon
Mathematics Association of America

(S - Sponsored, U - Un-sponsored)

**RESEARCH
PROJECTS:**

S Bozeman Transportation Study Commission, Public Transit Survey, \$944.

S Trout Unlimited, Angler Satisfaction Survey, \$7,508.

S Traffic Enforcement, Equipment and Training Needs, Montana Police and Sheriffs Offices Survey. Sponsoring agency: Montana Traffic Safety Office, \$2,000.

S Selective Maintenance Evaluation Design. Sponsoring agency: Montana Highway Traffic Safety Office, \$30,664.

S Survey of Montana Medical Doctors. Sponsoring agency: Department of Health, \$600.00.

S Analysis of Motor Vehicle Crash Data. Sponsoring agency: Montana Highway Traffic Safety Office, \$25,000.00.

S Montana Futures Study. Sponsoring agency: Governor's Office of Budget and Programming Planning, \$18,000.00.

S Demonstration Motor Vehicle Inspection Project in Lewis and Clark County. Sponsoring agency:

App. 20

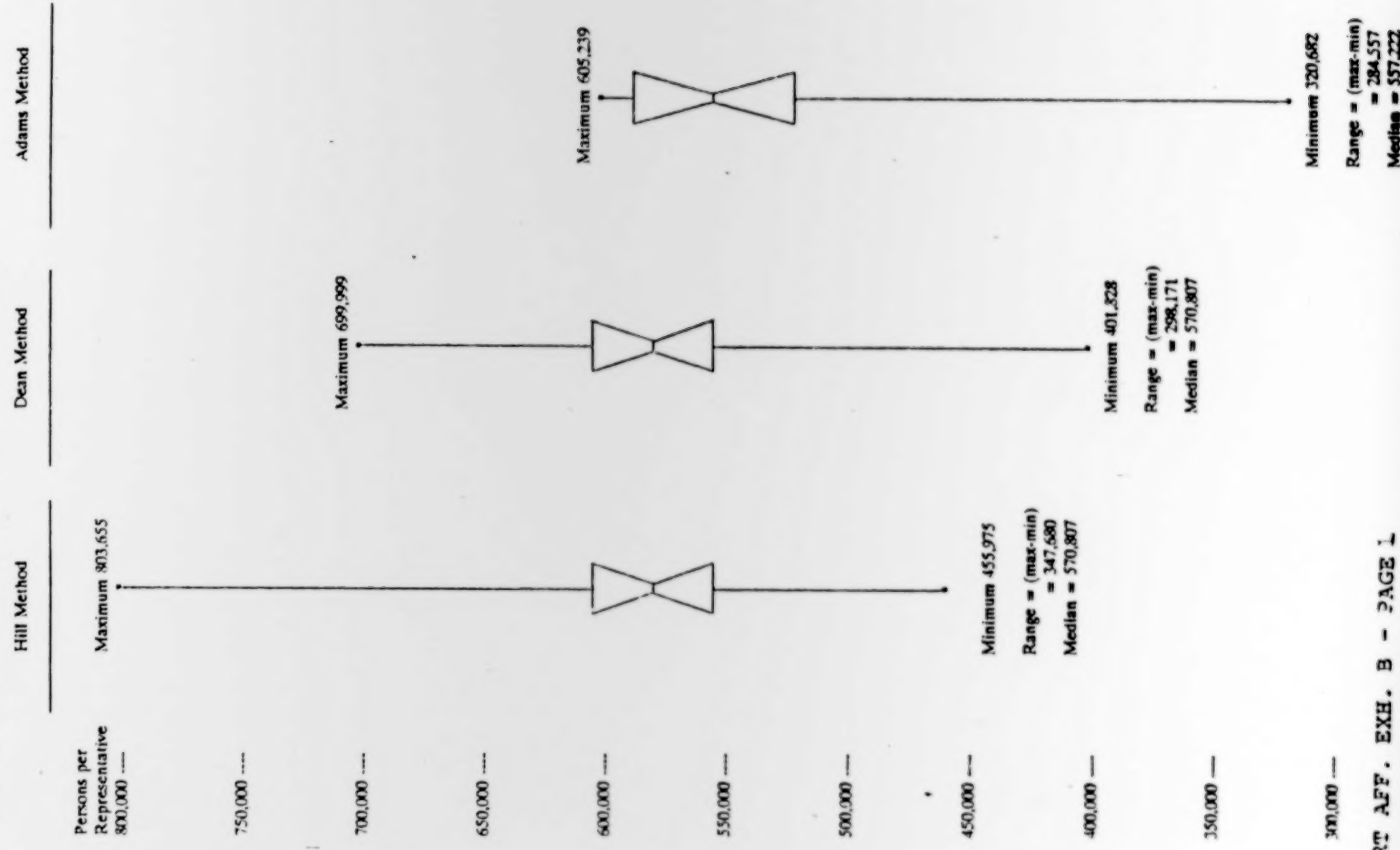
Montana Highway Traffic Safety Office, \$25,000.00.

- S Design of Motor Vehicle Inspection Program. Sponsoring agency: Montana Highway Traffic Safety Office, \$3,200.00.
 - S Statistical Analysis of Fisheries Creel Census Data. Sponsoring agency: Montana Fisheries Division, \$3,000.00.
 - S Constrained Randomization Designs. Sponsoring agency: NSF, \$11,600.00.
-

1/2/85

Exhibit B

Comparison of the Hill, Dean and Adams methods of apportionment based on 1990 census data. The three graphs show the range of the number of persons per representative. The hourglass box in each graph gives the middle 50% of the states and the whiskers indicate the spread of the 25% on each extreme.



DEC. 10. 1991

OFFICE OF THE CLERK

In The
Supreme Court of the United States
October Term, 1991

UNITED STATES DEPARTMENT OF COMMERCE;
ROBERT A. MOSBACHER, Secretary of the United
States Department of Commerce; BUREAU OF THE
CENSUS; BARBARA EVERITT BRYANT, Director of
the Bureau of the Census; and DONNALD K.
ANDERSON, Clerk of the United States
House of Representatives,

Appellants,

vs.

THE STATE OF MONTANA; STAN STEPHENS,
Governor of the State of Montana; MARC RACICOT,
Attorney General for the State of Montana; MIKE
COONEY, Secretary of State for the State of Montana;
MAX BAUCUS, United States Senator; CONRAD
BURNS, United States Senator; PAT WILLIAMS, United
States Representative; and RON MARLENEE,
United States Representative,

Appellees.

On Appeal From the United States District Court
For The District Of Montana

APPELLEES' RESPONSE TO BRIEF OF
THE COMMONWEALTH OF MASSACHUSETTS

Marc Racicot*
Attorney General
Clay R. Smith
Solicitor
Elizabeth S. Baker
Assistant Attorney General
State of Montana
Justice Building
215 North Sanders
Helena MT 59620-1401
(406) 444-2026

*Counsel of Record

December 1991

In The
Supreme Court of the United States

October Term, 1991

UNITED STATES DEPARTMENT OF COMMERCE, et al.,

Appellants,

vs.

THE STATE OF MONTANA, et al.,

Appellees.

**On Appeal From the United States District Court
For The District Of Montana**

**APPELLEES' RESPONSE TO BRIEF OF
THE COMMONWEALTH OF MASSACHUSETTS**

The appellees respectfully submit this response to the brief of *amicus curiae* Commonwealth of Massachusetts opposing appellees' request for an expedited briefing schedule and oral argument.

The Commonwealth requests the Court to postpone consideration of the appeal in this matter pending a ruling by the three-judge district court in *Commonwealth of Massachusetts, et al., v. Mosbacher, et al.*, CA No. 91-11234-WD (D. Mass.). The Commonwealth asserts that without the benefit of the ruling in the *Massachusetts* case

the Court will be deprived of valuable information that may assist resolution of the issues in this case. Although it agrees with the appellees' position on the issues of justiciability, standing, and the applicability of the "one person, one vote" standard to apportionment of seats in the United States House of Representatives among the several states, the Commonwealth nonetheless argues that the issues involved in the instant appeal may not be fully developed without consideration of the standards it has advocated in its pending litigation.

This case does not afford the luxury of time that the Commonwealth demands. The 1992 congressional elections are fast approaching, and the membership of the House is in question for the 103rd Congress and for subsequent Congresses. The parties to this appeal are in agreement that the case should be resolved as quickly as possible. As the appellants suggest in their Jurisdictional Statement, prompt review is "especially warranted to avoid the possibility of inconsistent judgments regarding the constitutionality of the statutory formula for apportioning Representatives among *all* the States." (J.S. at 25; emphasis in original.)

Furthermore, the Commonwealth has the opportunity to present its views to the Court as an *amicus curiae*. See S. Ct. R. 37.5. There is no reason to believe that the Commonwealth could offer more enlightenment to the Court as a party than it could offer as an *amicus*. The briefing schedule proposed by the parties allows ample time for Massachusetts to submit an *amicus curiae* brief raising the points it believes should be brought to the Court's attention. Under the parties' proposed schedule, the opening brief of appellants would not be due until January 15, 1992, with a response by appellees due February 12, 1992.

Arguments on the parties' cross-motions for summary judgment were heard before the three-judge district court

in the *Massachusetts* case on December 6, 1991. No cause exists to delay the schedule in the instant appeal while the *Massachusetts* case awaits district court resolution. The temporal exigency of the issues here simply does not allow this matter to linger.

Accordingly, should the Court note probable jurisdiction, appellees request that the proposed briefing schedule be adopted and the matter be calendared for oral argument during the February, 1992, argument calendar.

Respectfully submitted,

MARC RACICOT*

Attorney General

State of Montana

CLAY R. SMITH

Solicitor

ELIZABETH S. BAKER

Assistant Attorney General

Justice Building

215 North Sanders

Helena MT 59620-1401

(406) 444-2026

*Counsel of Record

December 1991

(3)

No. 91-860

Supreme Court, U.S.
FILED

DEC 6 1991

OFFICE OF THE CLERK

**In the
Supreme Court of the United States.**

October Term, 1991

UNITED STATES DEPARTMENT
OF COMMERCE, et al.,
Appellants

v.

STATE OF MONTANA, et al.,
Appellees

On Appeal From the United
States District Court
for the District of Montana

BRIEF OF THE COMMONWEALTH
OF MASSACHUSETTS AS AMICUS CURIAE

Scott Harshbarger
Attorney General
of Massachusetts

Dwight Golann*
Steve Berenson
Assistant Attorneys General
One Ashburton Place
Boston, Massachusetts 02108
(617)727-2200, ext. 2068

*Counsel of Record

(continued on back)

John Driscoll, Jr.
Edward Leibensperger
Neil Motenko
Special Assistant Attorneys
General
Nutter, McClennen & Fish
One International Place
Boston, Massachusetts 02110
(617) 439-2000

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Ohio ex rel. Eaton v. Price, 360 U.S. 246 (1959)	11
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State of Washington, et al. v. United States Department of Commerce, et al., C.A. No. C91-315, (W.D. Wash.)	8
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Statutes

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28 U.S.C. § 2284	4

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Miscellaneous

M. Balinski and H. P. Young, <u>Fair Representation: Meeting the Ideal of One Man, One Vote</u> (1982)	15, 16
House Report No. 97-18, Hearing Before the Subcommittee on Census and Population of the Committee on Post Office and Civil Service (June 11, 1981)	12
Stern, Gressman & Shapiro, <u>Supreme Court Practice</u> § 5.9 (6th ed. 1986)	10

No. 91-860

**IN THE
SUPREME COURT OF THE UNITED STATES
October Term 1991**

**UNITED STATES DEPARTMENT
OF COMMERCE, et al.,
Appellants,**

v.

**STATE OF MONTANA, et al.,
Appellees**

**On Appeal From the United
States District Court
for the District of Montana**

**BRIEF OF THE COMMONWEALTH
OF MASSACHUSETTS AS AMICUS CURIAE**

Pursuant to U.S. Sup. Ct. Rules 37.2
& 37.5, the Commonwealth of
Massachusetts files this brief as amicus
curiae to oppose the Motion for
Expedited Briefing Schedule and Oral
Argument which the State of Montana has
filed in this appeal.

STATEMENT OF INTEREST OF AMICUS CURIAE

This case involves a challenge by the State of Montana to the formula used to apportion the States' representation in the U. S. House of Representatives. See 2 U.S.C. § 2a. The Commonwealth of Massachusetts has an important interest in this case because it is advocating, in pending litigation, a method of apportionment different from that presented by any of the parties in the case at bar. A three-judge federal court in the District of Massachusetts has heard argument and has taken that case under advisement. The disposition of this appeal may control the outcome of the Massachusetts litigation.

The decision which is on appeal in this case is the first ever rendered by any court on an important constitutional issue, the validity of the formula

prescribed by statute to apportion congressional representation among the states. The Commonwealth believes that this Court should delay its consideration of this question until it has the benefit of a ruling by at least one other lower federal court. As is explained below, such a decision will soon be issued by the three-judge court sitting in Massachusetts.

LOWER COURT PROCEEDINGS

The Montana Case. The State of Montana and other plaintiffs filed the present action on May 22, 1991, seeking a declaratory judgment and an injunction against the use of the formula mandated by 2 U.S.C. § 2a to apportion seats in the U.S. House of Representatives among the states. Slip Opinion and Order,

State of Montana v. U.S. Dept. of Commerce, No. CV 91-22-H-CCL (D. Mont.), at 2 (hereinafter "Montana Slip. Op."). A three-judge court was convened pursuant to 28 U.S.C. § 2284. On October 18, 1991, the court decided that the Section 2a formula was "unconstitutional and void," and enjoined use of the formula in reapportioning the House. Montana Slip. Op. at 24.

The Montana court unanimously concluded that the plaintiffs had standing to challenge the apportionment formula, and that the issue was justiciable. Id. at 5-6. The court also held unanimously that this Court's "one person, one vote" decisions, e.g., Wesberry v. Sanders, 376 U.S. 1 (1964), apply to interstate apportionment, and

that the federal defendants were required to use the apportionment formula that produced equal representation among states in Congress "as nearly as practicable." Karcher v. Dagget, 462 U.S. 725, 730 (1983). Montana Slip Op. at 14-15.

However, on the question of which apportionment method best satisfies the constitutional standard, the Montana court split two to one. The majority adopted the so-called "Dean" method (Id. at 16-17), while the dissenting judge favored the method currently used by Congress, codified at 2 U.S.C. § 2a. Id. at 13 (opinion of O'Scannlain, J.) .

The Massachusetts Case. The Commonwealth of Massachusetts and two individuals sued the Secretary of Commerce and other federal officials on

May 1, 1991. See Commonwealth of Massachusetts, et al. v. Mosbacher et al., CA No. 91-11234-WD (D. Mass.) (hereinafter "Massachusetts"). The Massachusetts complaint also challenges the apportionment formula mandated by Section 2a, but on a significantly different basis than the Montana plaintiffs.^{1/}

Massachusetts agrees with the Montana plaintiffs on the issues of justiciability, standing and the applicability of this Court's "one-person, one-vote" decisions to the apportionment of seats in Congress.

^{1/} The Massachusetts litigation also challenges the Secretary of Commerce's decision to include federal military and civilian employees who were living overseas at the time of the 1990 census in state apportionment counts. That issue is not presented in the Montana case.

Massachusetts believes, however, that principles of equal representation require the use of a different formula, known as the "Webster" method. The Webster method differs significantly both from the Section 2a and the Dean formulas. The parties in the Massachusetts litigation argued cross-motions for judgment before a three-judge court on December 6, 1991, and the Court has the case under advisement.

Other Litigation. The Commonwealth is aware of no other pending case that concerns congressional apportionment formulas. While there are a number of cases on file that concern possible statistical adjustment of 1990 census figures in response to alleged undercounting of certain segments of the

population (see, for example, State of Washington, et al. v. United States Department of Commerce, et al., C.A. No. C91-315, W.D. Wash.), none of those cases involves a challenge to 2 U.S.C. § 2a.

SUMMARY OF ARGUMENT

This Court should wait for the opinion of the three-judge court in Massachusetts before ruling upon the constitutionality of the apportionment formula contained in 2 U.S.C. § 2a (pp. 5 - 6). The Massachusetts litigation provides information about alternative apportionment formulae not considered in the Montana litigation (pp. 6 - 8), and the views of the preeminent expert in congressional apportionment (pp. 8 - 9).

ARGUMENT

- I. THIS COURT SHOULD AWAIT AN OPINION FROM AT LEAST ONE OTHER LOWER FEDERAL COURT BEFORE DECIDING THIS IMPORTANT ISSUE.

The issue of whether the apportionment formula codified at 2 U.S.C. § 2a is constitutional is a question of first impression in American jurisprudence. Montana Slip Op. at 11. The issue is also important in constitutional analysis, because it implements the Great Compromise of 1787 which created the Union. Montana Slip Op. at 7-9. The choice of what formula should be applied to reapportion the House following each decennial census is also crucial to the balance of political power among the states of the union, now and in the future.

In deciding a question of such novelty and magnitude, this Court would benefit from an opinion and record from at least one other lower federal court. See Maryland v. Baltimore Radio Show, 388 U.S. 912, 918 (1950) (In setting forth possible reasons for denying a petition for certiorari, Justice Frankfurter stated that "[i]t may be desirable to have different aspects of an issue further illumined by the lower courts. Wise adjudication has its own time for ripening."). See also Stern, Gressman & Shapiro, Supreme Court Practice § 5.9 at 274 (6th ed. 1986), citing Keney v. New York, 388 U.S. 440 (1967) (petition for certiorari was held for nearly two and a half years until decisions were rendered in other

obscenity cases).^{2/}

There is only one other pending lawsuit that addresses the validity of the formula used in congressional apportionment. That is the Massachusetts litigation. This Court should delay plenary consideration of the apportionment formula issue until it has the benefit of that decision.

^{2/} While the above cases involved petitions for certiorari, this Court has noted the similarity between considering a jurisdictional statement whereby a litigant attempts to invoke the Court's appellate jurisdiction, and considering an application for a writ of certiorari. See Ohio ex rel. Eaton v. Price, 360 U.S. 246 (1959) (memorandum of Brennan, J.).

II. THE MASSACHUSETTS LITIGATION PROVIDES VALUABLE INFORMATION CONCERNING ALTERNATIVE APPORTIONMENT FORMULAS.

While the Montana court was unanimous on most issues, it split 2-1 on the question of which apportionment formula best satisfies the "one person, one vote" principle. The Montana court considered only two alternatives to the formula mandated by 2 U.S.C. § 2a, the so-called Dean and Adams methods. Id. at 16-20.

Neither the Dean nor the Adams method, however, has ever been used in an apportionment (House Report No. 97-18, Hearing Before the Subcommittee on Census and Population of the Committee on Post Office and Civil Service at 48 [June 11, 1981]), and the Montana decision does not reflect

consideration of the formulas other than the Hill method which have in fact been applied by Congress in prior apportionments. The Commonwealth submits that this Court would benefit from a lower court opinion and record that analyzed the merits of the alternatives which have been used in the past. This is particularly true in light of the fact that the Montana court could not agree as to which formula best satisfies the constitutional requirement. Id. at 13, 17.

The plaintiffs in the Massachusetts litigation, by contrast, advocate the "Webster" method of apportionment, named after its creator, Daniel Webster. Affidavit of Professor H. Peyton Young, ¶ 10 (hereinafter "Young Aff.") (attached). Unlike the Dean and Adams

methods, which have never been implemented, the Webster formula has been selected by Congress for six apportionments covering more than one third of the nation's history. Young Aff. ¶ 11. The Massachusetts plaintiffs argue that the Webster method is the only method that meets constitutional requirements because it brings every pair of states as close as possible to their quotas of seats in the House. Young Aff. ¶¶ 3, 55. In addition, the Webster method results in the smallest possible bias in favor of smaller or larger states, thus implementing the "Great Compromise" embodied in the Constitution. Young Aff. ¶¶ 41-45. Wesberry, 376 U.S. at 13.

The Massachusetts record compares the Webster method with the Section 2a,

Dean and other leading apportionment formulas. Young Aff. ¶¶ 31-56. Such a comparative analysis would greatly assist this Court in deciding which method of apportionment best implements the requirement of "one person, one vote."

**III. THE MASSACHUSETTS
LITIGATION PRESENTS EXPERT
INFORMATION NOT AVAILABLE
IN THE PRESENT RECORD.**

The Massachusetts record and opinion would be valuable to this Court in another respect: it presents an analysis performed by one of the nation's pre-eminent experts on congressional apportionment. The leading text on apportionment formulas is Fair Representation: Meeting the Ideal of One Man, One Vote (1982) by M. Balinski and H. P. Young. Fair Representation was

the sole expert treatise cited by the Montana court. Montana Op. at 14, n. 2. It has also been cited as an authority by the Department of Justice in the Massachusetts case. See Defendants' Memorandum in Support of Motion for Judgment, at 14.

Professor H. Peyton Young, co-author of Fair Representation, is the plaintiffs' expert in the Massachusetts case. This Court would find Professor Young's analysis, and a review of it by the Massachusetts three-judge court, a valuable aid in considering how to implement the principle of equal representation in congressional apportionment.

IV. CONCLUSION

For these reasons, the Commonwealth of Massachusetts opposes Montana's

request for expedited review of this appeal. The Commonwealth requests instead that this Court delay any hearing until the matter can be heard in tandem with an appeal in the Massachusetts case, or in the alternative, that this Court delay its decision until after the three-judge court has issued a decision in the Massachusetts litigation.

Respectfully submitted,

SCOTT HARSHBARGER
ATTORNEY GENERAL
OF MASSACHUSETTS

Dwight Golann*, BBO #196760
Steven Berenson, BBO #555765
Assistant Attorneys General
One Ashburton Place
Boston, Massachusetts 02108
(617) 727-2200

John Driscoll, Jr.
Special Assistant Attorney
General
Nutter, McClennen & Fish
One International Place
Boston, Massachusetts 02110
(617) 439-2000
BBO #135360

Dated: December 6, 1991

*Counsel of Record

JAN 16 1992

No. 91-860

OFFICE OF THE CLERK

In the Supreme Court of the United States

OCTOBER TERM, 1991

UNITED STATES DEPARTMENT OF COMMERCE, ET AL.,
APPELLANTS

v.

STATE OF MONTANA, ET AL.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA

JOINT APPENDIX (Volume I)

MARK RACICOT
Attorney General

CLAY R. SMITH
Solicitor

ELIZABETH S. BAKER
Assistant Attorney General
State of Montana
Justice Building
215 North Sanders
Helena, Montana 59620-1401
(406) 444-2026
Counsel for Appellees

KENNETH W. STARR
Solicitor General
Department of Justice
Washington, D.C. 20530
(202) 514-2217
Counsel for Appellants

NOTICE OF APPEAL FILED: OCTOBER 24, 1991

APPEAL DOCKETED: NOVEMBER 26, 1991

PROBABLE JURISDICTION NOTED: DECEMBER 16, 1991.

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LAWRENCE R. ERNST DECLARATION EXHIBITS:

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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA
HELENA DIVISION

CV 91-22-H-CCL

THE STATE OF MONTANA; STAN STEPHENS, Governor of
the State of Montana; MARC RACICOT, Attorney Gen-
eral for the State of Montana; MIKE COONEY, Secre-
tary of State for the State of Montana; MAX BAUCUS,
United States Senator; CONRAD BURNS, United States
Senator; PAT WILLIAMS, United States Representative;
and RON MARLENEE, United States Representative,
PLAINTIFFS

v.

UNITED STATES DEPARTMENT OF COMMERCE; ROBERT A.
MOSBACHER, Secretary of the United States Depart-
ment of Commerce; BUREAU OF THE CENSUS; BARBARA
EVERITT BRYANT, Director of the Bureau of the Census;
and DONNALD K. ANDERSON, Clerk of the United
States House of Representatives, DEFENDANTS

RELEVANT DOCKET ENTRIES

DATE	NR.	PROCEEDINGS
5/22/91	1	COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF W/ Attachment A (2 pages)
—		Issued Summons to following: D. Anderson, Barbara E. Bryant, Bureau of Census, Rob- ert A. Mosbacher, Sec., U.S. Dept. of Com- merce, U.S. Dept. of Com., D. Thornburgh, U.S. Atty. General, Doris Poppler, U.S. Atty.? * * *

(1)

DATE	NR.	PROCEEDINGS
	2	Plntf's MOT FOR PRELIMINARY INJUNCTION gr
	3	Plntf's BRIEF IN SUPPORT OF MOT FOR PRELIMINARY INJUNCTION Exh. atchd.
	4	Plntf's AFFID OF KENNETH J. TIAHRT
	5	Plntf's AFFID OF DIANNA M HILL W/ atchmts
	6	Plntf's MOT FOR CONVENING OF THREE-JUDGE COURT AND SUPPORTING MEMO.
5/24/91	7	ORDER, Having reviewed Plntfs' filed papers, Crt determines that the complaint raises challenge to constitutionality of the apportionment of congressional districts, & formally alleges basis for equitable relief, making this an appropriate case for presentation to three judge court. Accordingly, Crt notified office of Chief Judge of the Ninth Circuit Court of Appeals of the filing of this action and of the request for three judge court. Copies of this order be immediately transitted to Chief Judge J. Clifford Wallace and Terry Nafisi, Deputy Circuit Executive. * * * * *
7/ 5/91	17	EXECUTIVE BRANCH DEFTS' MOTION TO DISMISS
	18	EXECUTIVE BRANCH DEFTS' MOTION TO DISSOLVE THREE-JUDGE COURT
	19	MEMO IN SUPT OF EXECUTIVE BRANCH DEFTS' MTN TO DISMISS
	20	MEMO IN SUPT OF EXECUTIVE BRANCH DEFTS' MTN TO DISSOLVE THREE-JUDGE COURT

DATE	NR.	PROCEEDINGS
7/ 3/91	21	STIPULATION RE: PARTICIPATION OF DEFT DONNALD ANDERSON signed by cnsl of record. * * * * *
7/11/91	24	Pltf's MEMO BRIEF IN OPP TO MTNS TO DISMISS & TO DISSOLVE THREE-JUDGE COURT
7/17/91	25	REPLY BRIEF IN SUPP OF EXECUTIVE BRANCH DEFTS' MTNS TO DISMISS & TO DISSOLVE THREE-JUDGE COURT * * * * *
	28	Plntf's SUPPLEMENTAL BRIEF IN OPPOSITION TO DFNTS' MOTION TO DISMISS * * * * *
8/ 7/91	30	STATE OF WASHINGTON'S AMICUS BRIEF IN SUPPORT OF THE EXECUTIVE BRANCH DFNTS' MOT TO DISMISS
8/15/91	32	ORDER, Dfnts' motion to dismiss and motion to dissolve three-judge-court are DENIED, Any order such as this may be reviewed by the full court at any time before final judgment. * * *
	33	ORDER, case is set for hearing on Plntfs' motion for preliminary injunction on Sept. 3, 91 at 9:30 am at Helena before 3 judge court comprised of Hon. D. O'Scannlain, Hon. J. Battin and Hon. C. Lovell. Crt will also hear cross-mots by parties for sum. jdgmt, should they desire to file same. * * *
8/22/91	38	Pltf's MOTION FOR SUMMARY JUDGMENT * * * * *
	39	BRIEF IN SUPPT OF MOTN FOR SUMM. JGMT

DATE	NR.	PROCEEDINGS
	39A	Executive Branch's MTN, FOR SJ
8/23/91	40	Executive Branch Defts' MEMO IN SUPP OF MTN FOR SJ & IN OPP TO PLTFS' MTN FOR PRELIMINARY INJUNCTION
	41	Executive Branch Defts' PETITION FOR REVIEW BY THREE-JUDGE COURT OF ORDER DENYING MTN TO DISMISS
	42	MEMO IN SUPP OF EXECUTIVE BRANCH DEFTS' PETITION FOR REVIEW BY THREE JUDGE COURT OF ORDER DENYING MTN TO DISMISS
8/28/91	45	Pltf's BRIEF IN OPP TO DEFTS' MTN FOR SJ * * * *
	47	Pltfs' MEMO IN OPP TO EXECUTIVE BRANCH DEFTS' PETITION FOR REVIEW BY 3-JUDGE COURT OF ORDER DENYING MTN TO DISMISS
8/28/91	48	EXECUTIVE BRANCH DEFTS' OPP TO PLTFS' MTN FOR SJ
9/3/91	—	ENT RECORD OF PROC. AT HLNA. Hon Chas C. Lovell, Hon. Diarmud F. O'Scannlain & Hon. James Battin sitting. * * * Matter deemed submitted and crt adj. * * * *
10/18/91	51	OPINION & ORDER—pltfs' mtn for sj is GRANTED & defts' mtn is DENIED as to Count I of pltfs' complaint. Judgment shall enter declaring section 2a of Title 2, United States Code unconstitutional & void & permanently enjoining defts from effecting reapportionment of the House of Representatives under the provisions of that statute. Having decided Count I in favor of pltfs & granted pltfs' request for declaratory & in-

DATE	NR.	PROCEEDINGS
		junctive relief, it is unnecessary for the crt to further consider the merits of Count II.
	52	JUDGMENT & PERMANENT INJUNCTION—2 USC Section 2a is unconstitutional & void, the defts & each and all of them & their agents are hereby permanently enjoined from effecting reapportionment of the US House of Representatives under the provisions of said statute.
10/24/91	53	Dfnts' NOTICE OF APPEAL TO THE SUPREME COURT OF THE UNITED STATES the final order dated 10-18-91, granting pltfs perm inj & the Judgment entered 10-18-91
10/24/91	54	Dfnts' NOTICE OF APPEAL to Ninth Circuit Crt of Apls the final Jdgmt & Order dated October 18, 1991. * * * *
11/12/91	55	Deft's NOTICE OF APPEAL TO THE SUPREME COURT OF THE US the final order dated 10-18-91, granting pltfs perminj & the Judgment entered 10-18-91 (deft US House of Representatives—DONNALD K. ANDERSON) * * * *
	57	Deft's (US House of Rep—DONNALD K. ANDERSON) NOTICE OF APPEAL TO THE NINTH CIRCUIT COURT OF APPEALS the final jdgmt & Order dated 10-18-91 * * * *

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA
HELENA DIVISION

Cause No. CV91-22-H-CCL

THE STATE OF MONTANA; STAN STEPHENS, Governor of the State of Montana; MARC RACICOT, Attorney General for the State of Montana; MIKE COONEY, Secretary of State for the State of Montana; MAX BAUCUS, United States Senator; CONRAD BURNS, United States Senator; PAT WILLIAMS, United States Representative; and RON MARLENEE, United States Representative, Plaintiffs,

-v-

UNITED STATES DEPARTMENT OF COMMERCE; ROBERT A. MOSBACHER, Secretary of the United States Department of Commerce; BUREAU OF THE CENSUS; BARBARA EVERITT BRYANT, Director of the Bureau of the Census; and DONNALD K. ANDERSON, Clerk of the United States House of Representatives, Defendants.

AFFIDAVIT OF DIANNA M. HILL

[Filed May 22, 1991]

STATE OF MONTANA)
 :
County of Lewis & Clark)

Dianna M. Hill, being first duly sworn, upon her oath deposes and says:

1. I am a Programmer/Analyst II with the Montana Department of Justice, Data Processing Division, and have been employed by the Department since August, 1990.

I have the qualifications set forth in my resume, a copy of which is attached hereto as Exhibit A.

2. In preparation for this litigation, I have reviewed the formulae reprinted in the publication of the Bureau of the Census, United States Department of Commerce, entitled *Counting for Representation: The Census and the Constitution*, attached hereto as Exhibit B.

3. During February and March 1991, I created two programs and several databases to project and compare representative apportionment using the various formulae contained in Exhibit B. My calculations were made using data from the 1990 Census provided by the Bureau of the Census, United States Department of Commerce, attached hereto as Exhibit C.

4. Initially, each state was assigned one representative, the constitutional minimum, and each of the remaining 385 representatives was assigned by determining each state's priority using the Basic Formula (described in Exhibit J). The next representative was assigned to the state with the highest priority. This process was repeated until all 435 representatives were assigned to a state, and further projected to a total of 500, similar to the data provided by the Census Bureau. Each of the representatives and the state's priority at the time of the assignment were captured at this point for later comparisons between the formulae. The priority assignments are attached hereto as Exhibits D, E, and F, representing the Hill, Dean and Adams formulae, respectively.

5. Once the data for each formula was generated, a comparison between the Hill formula and each of the other two formulae (Adams and Dean) was performed. I then extracted the data for those states which would be affected if the formula was changed. This extract, which highlights those states that would benefit or lose if the formula changed, is attached hereto as Exhibit G. These exhibits show that under the Hill formula Montana is entitled to one representative, whereas under either the Dean formula or the Adams formula Montana is entitled to two representatives.

6. Finally, I generated from this data a table listing each state by number of constituents per representative for each of the three formulae. This table is attached as Exhibit H. I wrote another program to utilize this data to calculate variability and its square root using the ideal district size, as well as the estimated variance and standard deviation using the actual district size mean, the results of which are attached as Exhibit I. Exhibit I also illustrates the range, for each method, between the congressional district with the maximum number of constituents and the congressional district with the minimum number of constituents, as well as the ideal district size based upon a total membership in the House of Representatives of 435.

Dated this 21 day of May, 1991.

/s/ Dianna M. Hill
DIANNA M. HILL

Subscribed and sworn to before me this 21st day of May, 1991.

(SEAL)

/s/ Phyllis A. Holm
Notary Public
State of Montana.
Residing at Clancy, Mt.
My commission expires 7-9-93

HILL AFF. EXH. A.

DIANNA M. HILL
PO Box 5401
Helena, MT 59604
(406) 449-8676

CAREER OBJECTIVE

A challenging and stimulating position as a System Programmer/Analyst within a progressive organization.

EDUCATION

BS, *cum laude*, Computer Science, minor in Mathematics,
Monmouth College, West Long Branch, NJ, 1984

AS, Mathematics, Brookdale Community College, Lincroft, NJ 1982

Nuclear, Biological and Chemical NCO/Officer Course,
Fort Jackson, SC, 1978

Power Generation Equipment Operator/Mechanic, US
Army Engineer School, Fort Belvoir, VA, 1977

PROFESSIONAL EXPERIENCE

Over eight years of professional experience includes software design, development, testing and documentation; data base management; statistical analysis; personal computer course development and teaching; math and computer science tutoring; production research; and technical writing. Proficiency in Data General Assembler, IBM 360/370 Assembler, IBM-JCL, ANSI FORTRAN, ANSI COBOL, C, CICS COBOL, IDMS, PL/I, Pascal, dBase III+ query language, Clipper, and Basic. Extensive experience with the following PC software: ChiWriter, EnerGraphics, FlowCharting II+, MicroSoft FORTRAN, FoxBase +, Harvard Graphics, Lotus 123, Macro Assembler, Norton Utilities, PC Tools Deluxe, Procomm, rBASE, Scanning Gallery, Timeline, Turbo Basic, Turbo

Pascal, WordPerfect and WordStar. Hardware environments include AN/UYK-19 (ROLM 1602B), AN/UYK-64 (ROLM 1666C), DEC VAX 11/780, IBM 360/370, IBM 4381, IBM PC/XT/AT compatibles, DEC-Rainbow 100, BTI 8000, TRS-80, and Commodore 64.

CURRENT ASSIGNMENT

Programmer Analyst II for the State of Montana Department of Justice Data Processing Division assigned to support enhancements, improvements and corrections to the Motor Vehicle System. The Motor Vehicle System is a real-time computer system written in CICS COBOL which captures vehicle transactions including registration and titling entered by numerous operators at fifteen remote sites. This motor vehicle data is maintained in an IDMS database, which is updated via online transactions as well as batch processing from VSAM files captured during online processing. Further, daily batch jobs process the database information to generate various statistical, information and error reports.

PREVIOUS ASSIGNMENT

Senior Computer Programmer/Analyst for the Center for Electronic Warfare/Reconnaissance, Surveillance and Target Acquisition (EW/RSTA) assigned to the United States Army Field Artillery's Meteorological Data System (MDS) in a research and development facility at Evans Area, Fort Monmouth, NJ. The MDS is a real-time computer system written in Data General Assembler which captures pressure, temperature, and humidity telemetry data transmitted by a weather-balloon-borne radiosonde, combines the data with position location information obtained from either a NAVAID (navigational aids) Data Unit (LORAN, Omega and/or VLF transmissions), an Antenna Data Unit (Radio Direction Finder angle information), or an Auto-Theodolite (pilot balloon coordinate information). The MDS then massages the data using

meteorological algorithms and provides real-time meteorological data in various messages formats via a Remote Data Terminal to TACFIRE, MLRS, LANCE, and BCS as well as via teletype to standard military communications systems.

CAREER HIGHLIGHTS

Currently responsible for assisting in building a PC-based prototype of the Motor Vehicle System for offline processing at the remote sites to minimize mainframe usage where possible. This will require timed communications between the mainframe and dedicated computer or LAN server at each remote site.

Wrote and compiled the Software Product Specification for the AN/TMQ-31 Meteorological Data System, a seven-volume programmer's reference document which details top-level design, detailed design and interface design; re-wrote and compiled the Computer Program Development (B5) Specification for the Meteorological Data System AN/TMQ-31 System Processor Unit; participated in the Functional Qualification Test and Performance Qualification Test during First Article Testing as a government evaluator; assisted in the correction of 75 Software Trouble Reports uncovered during First Article Testing; wrote and compiled the AN/TMQ-31 (MDS) Follow Up Evaluation Test Procedures; participated in the Follow Up Evaluation Test as a government evaluator; and wrote and compiled the AN/TMQ-31 (MDS) Follow Up Evaluation Test Report.

Designed and developed software tools to automate the development of the Software Product Specification; monitor, compare and report results of the Functional Qualification Test, Performance Qualification Test and Follow Up Evaluation; and to track Software Trouble Reports and resultant changes to the software.

Designed, tested and implemented the NIFFTE Data Base Program, NIFFTE Guard Shack Program, NIFFTE Guard Shack To Go Program, and the NIFFTE Head Shed Program. This series of data base management programs was designed to control access to a restricted research and development area by providing an automated security roster, a subset of the master data base, to computer-illiterate guards at the entry point, a master data base located at a remote site, and a means of maintaining data base integrity while updating records at both sites without networking capabilities due to security requirements. Additional utilities provided immediate solutions for fouled data at the Guard Shack during hours when support personnel were unavailable. Wrote and compiled a series of reference and user's manuals including a 6th-grade reading level Guard Shack User's Manual and a step-by-step extract detailing start-up and recovery procedures.

Designed, tested and implemented major programming changes to the SADS 6 telemetry program, a real-time mission to accept telemetry data transmitted from both the ARTIS control radar and the SADS 6 test radar, convert the data and display both graphics and comparison graphs to Vector General scopes on the ground.

Designed, tested and implemented the ALR-62I program to accept telemetry data, convert it, and produce real-time displays duplicating on-board scopes which detect, identify and track mission threats.

Designed, tested and implemented the Contract Data Requirements Schedule Program, a generic data base management tool designed to manipulate data related to contract data requirements. Wrote and compiled the Contract Data Requirements Schedule Program User's Manual.

Designed, developed and taught courses in Micro-Pro's WordStar, Ashton-Tate's dBase II and MicroSoft's Multiplan to government employees.

Designed, tested and implemented a statistical analysis package to compile student evaluations for the Departments of Sociology, Anthropology, Social Work and Criminal Justice at Monmouth College.

Tutored educationally-disadvantaged students in mathematics and computer science for the Educational Opportunity Fund (EOF) Office at Brookdale Community College.

Led a small work force in production research project at Excelled, Incorporated. Conducted, measured, and analyzed work flow and efficiencies testing. Also organized and implemented an inventory control system.

Supervised two civilian and three military personnel in a headquarters office in the US Army. Was responsible for all incoming and outgoing military correspondence, military filing system, military criminal justice proceedings at company level and unit level mail room. Was one of four Nuclear, Biological and Chemical (NBC) Team members at brigade level. During semi-annual NBC alerts, assisted in data collection and analysis, radio communications and team mobilization.

WORK EXPERIENCE SUMMARY

State of Montana Department of Justice, Helena, MT—
.8 year

UNISYS Defense Systems, Eatontown, NJ—5.2 years

Vanguard Technologies Corporation, Eglin Air Force Base, FL—.7 year

Monmouth College, West Long Branch, NJ—.3 year

Brookdale Community College, Lincroft, NJ—2.5 years

Excelled, Incorporated, Edison, NJ—1.5 years

US Army, Fort Jackson, SC—3 years

HONORS

UNISYS Achievement Award for Excellence, Eatontown, NJ, 1988

Mu Kappa Sigma Honor Society, Monmouth College, West Long Branch, NJ, 1984

Lambda Sigma Tau Honor Society, Monmouth College, West Long Branch, NJ, 1984

Mathematics Honor Society, Monmouth College, West Long Branch, NJ, 1984

Distinguished Graduate, Nuclear, Biological and Chemical NCO/Officer Course, Fort Jackson, SC, 1978

Distinguished Graduate, Power Generation Equipment Operator/Mechanic, US Army Engineer School, Fort Belvoir, VA, 1977

Outstanding Trainee of the Cycle, Basic Training, Fort Jackson, SC, 1976

REFERENCE

Available upon request.

REPORT OF NATIONAL ACADEMY
OF SCIENCES COMMITTEE
ON APPORTIONMENT

(Source: Annual Report of National Academy of Sciences, Fiscal Year 1928-29, pp. 20-23)

REPORT OF THE PRESIDENT OF THE ACADEMY

In accordance with the provision of article V, section 4, of the constitution of the Academy, stipulating that in cases of requests by the Government of the United States to the National Academy of Sciences for investigations or reports by the Academy the President shall report their results to the Government as soon as obtained and to the Academy at its next following stated meeting, I beg to report that the President of the Academy has replied to a request by Mr. Nicholas Longworth, Speaker of the House of Representatives, for information with regard to the mathematical aspects of the problem of reapportionment. Upon receipt of the request the following committee was appointed to consider the matter: Raymond Pearl, chairman; G. A. Bliss, E. W. Brown, L. P. Eisenhart, and W. F. Osgood (Mr. Osgood resigning before the completion of the committee's report). The committee presented a very comprehensive report which was forwarded to the Speaker on February 5, 1929. Later, with the Speaker's informal approval, copies of the report were sent to Senator Claude A. Swanson, of Virginia, and to Senator David I. Walsh, of Massachusetts, both of whom had requested the information.

A full copy of the report, as presented by the committee and forwarded by the President of the Academy to the Speaker and to Senators Swanson and Walsh, is attached hereto.

T. H. MORGAN, *President.*

REPORT TO THE PRESIDENT OF THE NATIONAL ACADEMY
OF SCIENCES

The committee appointed by you, in response to the request of the Speaker of the House of Representatives for information regarding the mathematical aspects of the problem of reapportionment, submits the following report:

The Constitution provides that, "Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed. * * * But each State shall have at least one Representative."

If fractional voting were permitted in the House of Representatives the exact number of Representatives with whole votes, and the size of the fractional vote for an additional Representative, to which each State would be entitled in a theoretically perfect apportionment could be readily calculated. It would only be necessary to work out the following proportion: The number of votes for any particular State is to the total number of votes for all States as the population of the particular State is to the total population of all States.

If, however, this simple proportionality were calculated it would result, in nearly all cases, that the number of Representatives for each particular State would consist of a whole number and a fraction, as, for example, 7.3. Fractional voting is not permitted. Therefore it is necessary to reach a solution of the apportionment problem in whole numbers. This fact alters the mathematical nature of the problem fundamentally. Even when the exact number of votes, including fractions, belonging theoretically to each State is precisely known, this knowledge is not of itself sufficient to determine the proper number of Representatives to be apportioned to that State. The proper apportionment of integral numbers of Representatives to a particular State may differ by several units from the number obtained by simple proportion. This is true regardless of which of the several known methods of apportionment described below is adopted.

The problem of apportionment which has been thus described is a problem in applied mathematics. It should be understood that frequently a problem in applied mathematics may have no unique solution, for the reason that the data initially given do not completely characterize the solution mathematically. In such cases a solution must be chosen for other than mathematical reasons among those which are mathematically possible.

There are five methods of apportionment now known which are unambiguous (that is, lead to a workable solution), and should be considered at this time.

These five methods are:

- Method of smallest divisors.
- Method of the harmonic mean.
- Method of equal proportions.
- Method of major fractions.
- Method of greatest divisors.

In the present state of knowledge your committee regards these as the only methods of apportionment avoiding the so-called Alabama paradox which require consideration at this time. Their effectiveness is based upon a mathematical test which will be described below. Another method of approach to the apportionment problem may be based upon the adjustment by some method of curve fitting (as, for example, the method of least squares) of representation to the population of the country as a whole, but in the opinion of your committee the methods of this type so far proposed, which do not lead to solutions among the five listed above, fail.

After full consideration of the various methods your committee is of the opinion that, on mathematical grounds, the method of equal proportions is the method to be preferred. Each of the other four methods listed is, however, consistent with itself and unambiguous.

The essential mathematical characteristics of the five methods are as follows:

Let the population of a State be A and the number of Representatives assigned to it according to a selected method of apportionment be a , and let B and b represent the corresponding numbers for a second State. Under an ideal apportionment the population A/a , B/b of the congressional districts in the two States should be equal, as well as the numbers a/A , b/B , of Representatives per person in each State. In practice it is impossible to bring this desirable result about for all pairs of States.

In the opinion of the committee the best test of a desirable apportionment so far proposed is the following:

An apportionment of Representatives to the various States, when the total number of Representatives is fixed, is mathematically satisfactory if for every pair of States the discrepancy between the numbers A/a and B/b cannot be decreased by assigning one more Representative to the State A and one fewer to the State B , or vice versa, or if the two numbers a/A and b/B have the same property.

For the purposes of discussion let A/a be larger than B/b so that State A is underrepresented as compared with B . If the "discrepancy" between A/a and B/b is defined to be the percentage discrepancy; that is the difference $A/a - B/b$ divided by the smaller B/b of the two numbers A/a , B/b and if the discrepancy between b/B and a/A is measured in the same way, the test above leads to an apportionment which satisfies the test when applied to either the pair A/a , B/b , or the pair a/A , b/B . The method so determined has been called the method of equal proportions.

If the test is applied only to the pair a/A , b/B , and if the discrepancy between those numbers is interpreted to be the absolute difference $b/B - a/A$, another method of apportionment called the method of major fractions is uniquely determined. If, on the other hand, the test is applied only to absolute difference of the pair A/a , B/b a third method, called the method of the harmonic mean is similarly defined.

It has been shown that there are two further methods of apportionment determined by the test set down above when applied to the differences $b - aB/A$, $bA/B - a$. Those are called, respectively, the method of smallest divisors, and the method of greatest divisors.

The methods thus briefly characterized mathematically are the five methods in the list above. Each method in the list favors the larger States as compared with the methods which precede it. This means in the case of the second and fourth methods, for example, that if for two unequal States, A , B , the fourth method assigns more Representatives to A and fewer to B than the second method, then the State A is the larger of A and B .

The method of the harmonic mean and the method of major fractions are symmetrically situated on the list. Mathematically there is no reason for choosing between them. A similar symmetry exists for the methods of smallest and greatest divisors for which the defining discrepancies seem, however, more artificial than those for any of the other three methods.

The method of equal proportions is preferred by the committee because it satisfies the test proposed above when applied either to sizes of congressional districts or to numbers of Representatives per person, and because it occupies mathematically a neutral position with respect to emphasis on larger and smaller States.

G. A. BLISS,
E. W. BROWN,
L. P. EISENHART,
RAYMOND PEARL, *Chairman*.

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA
HELENA DIVISION

Cause No. CV91-22-H-CCL

THE STATE OF MONTANA, ET AL., PLAINTIFFS

v.

UNITED STATES DEPARTMENT OF COMMERCE, ET AL.,
DEFENDANTS

DECLARATION OF LAWRENCE R. ERNST

I, Lawrence R. Ernst, declare and state as follows:

BACKGROUND

1. I am Assistant Division Chief of the Statistical Research Division, Bureau of the Census (see Exhibit A for curriculum vita).

THE DECENNIAL CENSUS AND APPORTIONMENT

2. The Census Bureau conducts the decennial census to determine the whole number of persons in each state, and then calculates the apportionment of seats in the U.S. House of Representatives among the states. The calculation of the apportionment is based upon the method of equal proportions as required by Title 2, United States Code, Section 2a(a). These results are conveyed to the President through the Secretary of Commerce on or before December 31st of the year in which the census is taken (Title 13, United States Code, Section 141(b)).

3. The President then transmits to the United States Congress (the Congress) a statement of the whole number of persons in each state and the number of representatives in the Congress to which each state is entitled, as ascertained under the decennial census (Title 2, United States Code, Section 2a(a)). The Clerk of the U.S. House of Representatives (the House) then notifies each state (via a Certificate of Entitlement) of the number of representatives in Congress to which it is entitled (Title 2, United States Code, Section 2a(a)).

4. Article I, Section 2 of the Constitution further requires that "The Number of Representatives shall not exceed one for every thirty Thousand, but each State shall have at Least one Representative. . . ." The Congress has legislated four methods for apportionment since the first census of 1790. In 1941, Congress passed laws that govern the method currently used and the process for apportionment.

METHODS USED TO APPORTION THE
HOUSE OF REPRESENTATIVES

5. Following the first decennial census in 1790, Congress legislated use of the Jefferson method (also known as the method of greatest divisors) of apportionment in 1792. This method was used after each subsequent census through 1830.

6. Following the 1840 census, the Congress legislated use of the Webster method (also known as the method of major fractions) for the apportionment calculation.

7. Congress legislated use of the Vinton method (also known as the Hamilton method) for apportionment following the censuses of 1850 through 1900. Under this method, it is mathematically possible that a state could be entitled to fewer seats if the size of the House were increased and the population of all states remained constant. This anomaly is known as the "Alabama paradox", because it was observed that for the 1880 census, Alabama would receive eight seats with a House size of 299

and seven seats with a House size of 300 by the use of the Vinton method.

8. In 1910, Congress legislated use of the major fractions method. Congress could not decide on an apportionment plan following the 1920 census and, as a result, no reapportionment took place. In 1929, Congress passed a law that made reapportionment automatic, beginning with the reapportionment following the 1930 census, using whatever method was used for the previous apportionment in the event the Congress did not agree on the method to be used. Thus, as a result of this legislation, the major fractions method, which had been used in 1910 (the most recent reapportionment), was used again following the 1930 census. It should be pointed out that the major fractions and equal proportions methods resulted in the same apportionment for 1930 so that Congress, in effect, did not have to choose between those two methods that had been the focus of Congressional hearings on apportionment.

9. In 1941, the Congress debated apportionment methodologies and decided that the method of equal proportions (also known as the Hill method) would be used for the apportionment based on the 1940 census. The method of equal proportions has been used for each subsequent apportionment, including 1990.

NATIONAL ACADEMY OF SCIENCES REVIEW OF METHODS

10. One of the products of the lengthy debates in the Congress regarding apportionment following the 1920 census, was the Congress' commissioning the National Academy of Sciences (NAS) to prepare a report "regarding the mathematical aspects of the problem of reapportionment". The report of the Committee on Apportionment discussed five methods "now known which are unambiguous (that is, lead to a workable solution)": smallest divisors (Adams method), harmonic means (Dean

method), equal proportions, major fractions, and greatest divisors. With a fixed House size, apportionments under these five methods are calculated using formulas involving each state's total population and a divisor which determines each state's priority for its next seat (after one seat is assigned to each state). The divisors for the different formulas are functions of the number of seats already assigned to a given state which vary according to specific goals that each method is designed to achieve.

11. The NAS committee put forth the following tests to measure equity in assigning seats:

a) *Persons per representative* (Average district size)—Determined by dividing the population of each state by the number of representatives assigned to that state.

b) *Person's share of a representative*—Determined by dividing the number of representatives assigned to each state by the population of that state.

c) *Representation surplus*—The absolute difference between the number of representatives of an over-represented state (a state where the average persons per representative is lower than that of another state) and the number of representatives of an under-represented state multiplied by the population of the over-represented states divided by the population of the under-represented state.

d) *Representation deficiency*—The absolute difference between the number of representatives of an under-represented state and the number of representatives of an over-represented state multiplied by the population of the under-represented state divided by the population of the over-represented state.

12. The NAS committee tested equity by applying pairwise comparisons, a commonly used approach that consists of examining the effects of moving a seat between any pair of states. An apportionment method is optimal under the pairwise criterion with respect to a particular measure of inequity if a transfer of representatives be-

tween any pair of states increases the amount of inequity between these states. The measures of inequity are expressed either as absolute differences or as relative differences in persons per representatives or a person's share of a representative (also referred to as percent differences or proportional differences).

The absolute difference between two numbers consists of subtracting the smaller number from the larger number.

The relative difference between two numbers consists of subtracting the smaller number from the larger number and then dividing the result by the smaller number.

Paragraph 21 of this declaration provides numerical illustrations of the distinction between absolute and relative differences).

13. With the pairwise criterion, each of the five methods considered by the NAS committee is optimal for different measures of inequity. The major fractions method is optimal with respect to the absolute difference between each person's share of a representative. The harmonic means method is optimal with respect to the absolute difference between the numbers of persons per representative. The equal proportions method is optimal with respect to both the percent difference between the number of persons per representative and the percent difference between each person's share of a representative. The smallest divisors method is optimal with respect to the absolute representation surplus, while the greatest divisors method is optimal with respect to the absolute representation deficiency.

14. The report of the National Academy of Sciences committee, submitted to Congress in 1929, stated that the committee preferred the equal proportions method and concluded that "it occupies mathematically a neutral position with respect to emphasis on larger and smaller states" (Report of the National Academy of Sciences Committee On Apportionment from the Annual Report of

the National Academy of Sciences, Fiscal Year 1928-29, pp. 20-23).

15. In summary, since 1790, Congress has legislated use of four different methods for apportionment. Three of these methods (major fractions, equal proportions, and greatest divisors) and two others (harmonic means and smallest divisors) were studied and reported on to the Congress by the National Academy of Sciences in 1929. Attached hereto as Exhibit B is a table which displays apportionments based on the 1990 census results and a fixed House size of 435 under these five methods and the Hamilton method. Besides these six methods, many other methods could be devised depending on the objectives to be met.

REVIEW OF METHODS AND RESULTS DESCRIBED BY PLAINTIFFS

16. Plaintiffs describe three methods for apportionment in their Motion for Preliminary Injunction: the method of equal proportions; the method of smallest divisors; and the method of harmonic means. To compare and evaluate these methods, they cite the principle of "one person, one vote" as the objective (or "test for fairness") to be met. They then propose average district size (number of persons per representative) be used to measure the extent to which any method can meet this test. Next they state that the Dean Method will always minimize the absolute difference in average district size (for pairwise comparisons of the results when deciding how to allocate a seat between any two given states).

17. While it is true that the Dean method will minimize the absolute difference in average district size between states for pairwise comparisons, it does not minimize differences in each person's share of a representative. Controlling for average district size ensures equity in the average number of persons represented by each member of the House of Representatives ("one person, one vote" for *intra*-state districts). Controlling for each

person's share of a representative ensures equity in the average number of members of the House that represent each person. It can be argued that the latter is a better test of "one person, one vote" for districts between states since it measures the portion of a vote (member) to which a person is entitled in the House. In any case, both tests can be considered valid tests of the "one person, one vote" principle. The equal proportions method can be shown to be the only method that can simultaneously meet both tests in a proportional, not absolute, sense for pairwise comparisons. The historical arguments for equal proportions were first developed by Professor E. V. Huntington of Harvard in 1921. Huntington showed that equal proportions is the only method that always produces an apportionment with the following properties: Once representatives have been assigned to the states using the equal proportions method, *any* transfer of representatives between two states always will increase the relative difference between the two states' average district size *and* will increase the relative difference between each person's share of a representative for the two states.

18. To illustrate, if the Dean method were used instead of the equal proportions method to allocate seats in the House of Representatives for the 1990 apportionment population, Montana would be allocated two seats instead of one, Washington would be allocated eight seats instead of nine, and all other allocations would be unchanged. With the equal proportions allocations, Montana has an average district size 48.0% larger than Washington, while a Washington resident has an average share of a representative 48.0% higher than a Montana resident. However, if a seat were transferred from Washington to Montana, then Washington would have an average district size 52.1% larger than Montana, and a Montana resident would have an average share of a representative 52.1% higher than a Washington resident. Thus, in relative terms, using the equal proportions

method, Montana is less disadvantaged in comparison with Washington than Washington would be in comparison with Montana if a seat were transferred from Montana to Washington (as would occur using the Dean method).

19. An alternative way of looking at this concept is as follows: With the equal proportions method, the Montana district size of 803,655 would be 40.4% greater than the average United States district size of 572,466. However, if Montana were to receive a second seat (as it would, for example, using Dean's method) then the average United States district size would be 42.5% greater than Montana's average district size of 401,828. Thus, in this respect, Montana's advantage with an allocation of two seats is larger than its disadvantage with one seat. For Washington, the average United States district size is 5.4% larger than Washington's average district size with the equal proportions allocation of nine seats. If Washington were to receive eight seats (as it would, for example, using Dean's method), then Washington's average district size would be 6.7% larger than the United States average. In this respect, Washington's advantage with an allocation of nine seats is smaller than its disadvantage with an allocation of eight seats. The method of equal proportions guarantees that a higher priority is given to awarding a seat to a state that has a smaller advantage in relative terms with the additional seat than its disadvantage without the additional seat, and a lower priority to a state for which the opposite is the case. Consequently, under the equal proportions method, Washington receives a higher priority for a ninth seat than Montana does for a second seat.

20. As noted previously, the Dean method is optimal in a pairwise sense with a different measure of equity. It is the only method for which any transfer of representatives between two states always increases the absolute difference between the two states' average district sizes. Under the Dean method, Montana would receive two seats and

have an average district size of 401,828 while Washington would receive eight seats and have an average district size of 610,993, resulting in a 209,165 difference in absolute value. With an allocation of one seat to Montana and nine to Washington, Montana's average district size would be 803,655 and Washington's would be 543,105, resulting in an increase in the absolute value of the difference to 260,550.

21. In comparison with the use of relative differences, the use of absolute differences between average district sizes as a test tends to give more weight to positive deviations from the national average district size than it does to negative deviations. To illustrate by any artificial example, consider a national average district size of 600,000. Then consider a district size of 1,200,000 and one of 300,000: both have relative differences of 100% from 600,000 and are equally inequitable in relative terms. (That is, in one case the district is twice as large as the ideal, while in the other it is twice as small.) However, in absolute terms, the inequity is greater for the district of size 1,200,000, since it has an absolute difference of 600,000 from the average district size of 600,000 while the district of size 300,000 has an absolute difference of 300,000 from the average district size. In relative terms, any district of size less than 300,000 would present a greater inequity than a district of size 1,200,000. In absolute terms (again, compared to the average of 600,000), a district of size 1,200,000 presents a greater inequity than even a district of size 1 (which has an absolute difference of 599,999).

22. The Adams method is also mentioned by plaintiffs. This method is optimal with respect to absolute representative surplus for the pairwise criterion. However, the authors of the 1929 NAS report considered this measure of inequity more artificial than the measures of inequity for which either the Dean or equal proportions methods are optimal. Furthermore, among the three methods mentioned by plaintiffs, the Adams method is the only one that would have suffered from quota violations

if it had even been used for apportionment. To illustrate the concept of quota, if a fractional number of House seats were allowed, then California's exact, proportional share based on the 1990 apportionment population would be 52.124. Since fractional representation is not permitted, it would appear natural to require that California's number of seats be either rounded down to 52 or up to 53. Any other allocation would be deemed a quota violation. Applying the Adams method to the 1990 apportionment population would only allocate 50 seats to California and would also result in quota violations for Illinois, New York and Ohio. In fact, the use of the Adams method would have resulted in a quota violation for at least one state for every census since 1820, with a total of 47 violations of quota. Although it can be shown that all three methods described by plaintiffs theoretically can violate quota, such violations would not have occurred for any census under the the equal proportions method or the Dean method.

23. In addition to tests which focus on inequity among pairs of states, tests of equity can be devised using various measures of deviation from some definition of "ideal" among all states. The plaintiffs declare that the proper measure of deviation is the absolute population variance between districts and that the Dean methods results in the smallest such variance. This latter claim is incorrect. The variances actually computed as described in Diana Hill's affidavit, were for the average district sizes for the 50 states. This computation failed to take into account the number of districts in each state. A proper formula for computing the variance among the 435 districts is

$$\sum_{i=1}^{50} a_i \left(p_i / a_i - \sum_{j=1}^{50} p_j / 435 \right)^2 / 434,$$

where p_i is the population and a_i is the number of seats allocated to the i -th state. With this formula, the variances are 661,230,400 for the equal proportions method, 681,742,400 for the Dean method, and 1,911,200,000 for

the Adams method. Not only does the equal proportions method minimize variance between districts for this particular census among these three methods, but it can be shown mathematically that the equal proportions method minimizes this variance among all apportionment methods and all sets of populations.

24. The plaintiffs also propose a second test for measuring deviation among the 50 states: namely, the range in district size. It is true that both the Adams and the Dean methods produce a smaller range (an absolute number) in district size for the current census than the equal proportions method. However, if relative difference (rather than absolute difference) is accepted as an appropriate measure of inequity, a range test, like the pairwise test associated with the Dean method, tends to give greater weight to large positive deviations from the national average district size than to large negative deviations (see discussion in paragraph 21). An alternative to this test would be to first compute the relative difference between each state's average district size and the national average district size, and then compute the maximum of these relative differences among all 50 states. For the current census, the maximum relative difference is smallest at 40.4% for the equal proportions method, while it is 42.5% for the Dean method, and 78.5% for the Adams method.

25. Attached hereto as Exhibit C is a table which illustrates the number of seats that Montana would receive under each of the six methods discussed in this declaration based on the results of the last four censuses (1960, 1970, 1980, and 1990), given a fixed House size of 435. Under all four methods ever legislated by Congress for use, Montana's apportionment would be one seat for 1990.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Executed on: August 23, 1991

/s/ Lawrence R. Ernst
LAWRENCE R. ERNST

CURRICULUM VITA

Lawrence R. Ernst

Education:

B.S.

City College of New York, New York, NY, 1966
Magna Cum Laude
Mathematics

Ph.D.

Brown University, Providence, RI, 1970
Mathematics

Professional Experience:

1987-present

Assistant Division Chief
Statistical Research Division
Bureau of the Census
Washington, DC 20233

1977-1987

Mathematical Statistician
Statistical Research Division and
Research Center for Measurement Methods
Bureau of the Census
Washington, DC 20233
(Principal Researcher 1983-87)

1970-1977

Assistant Professor and Instructor
Department of Mathematics
Queens College of CUNY
Flushing, NY 11367

Professional Memberships:

American Statistical Association
American Mathematical Society

Honors and Awards:

Merit Pay Performance Awards, 1984-90
 Bureau of the Census Bronze Medal, 1987
 Best presentation award at the American Statistical Association annual meeting, 1978
 CUNY Faculty Research Awards, 1972, 1973
 Elected to Sigma Xi, 1970
 NASA Traineeship, 1966-69
 New York State Regents Fellowship, 1966
 Elected to Phi Beta Kappa, 1966

Referred Publications:

"Weighting Issues for Longitudinal Household and Family Estimates," *Panel Surveys* (1989) New York; John Wiley, 139-159.

"Maximizing the Overlap Between Surveys when Information is Incomplete," *European Journal of Operational Research* 27 (1986), 192-200.

"Applications of Transportation Theory to Statistical Problems," *Journal of American Statistical Association* 80 (1985), 903-909. (Co-author)

"Controlled Rounding," *INFOR* 20 (1982), 423-432. (Co-author)

"Comparison of Estimators of the Mean Which Adjust for Large Observations," *Sankhya Series C* 42 (1980), 1-16.

"A Gross Measure Property," *Transactions of the American Mathematical Society* 238 (1978), 397-406.

"T Measure of Cartesian Product Sets II," *Transactions of the American Mathematical Society*, 222 (1976), 211-220.

"A Hausdorff Measure Inequality," *Transactions of the American Mathematical Society* 219 (1976), 211-220.

"T Measure of Cartesian Product Sets," *Proceedings of the American Mathematical Society* 49 (1975), 199-202.

"A Proof that H^2 and T^2 Are Distinct Measures," *Transactions of the American Mathematical Society* 191 (1974), 363-372.

"A Proof that C^2 and T^2 Are Distinct Measures," *Transactions of the American Mathematical Society* 173 (1972), 501-508.

Other Publications and Presentations:

Includes authorship or co-authorship of 18 papers presented at the annual meetings of the American Statistical Association; presentations at meetings of the American Mathematical Society and the Operations Research Society of America; and presentations at seminar series at the Census Bureau, the Bureau of Labor Statistics, and the National Center for Health Statistics.

SUPREME COURT OF THE UNITED STATES

No. 91-860UNITED STATES DEPARTMENT OF COMMERCE, ET AL.,
APPELLANTS

v.

MONTANA, ET AL.

APPEAL from the United States District Court for the District of Montana. The statement of jurisdiction in this case having been submitted and considered by the Court, in this case probable jurisdiction is noted. The motion of appellees for expedited briefing schedule and oral argument is granted. The opening brief of appellants is to be filed with the Clerk on or before January 15, 1992. The brief of the appellees is to be filed with the Clerk on or before February 12, 1992. The reply brief of appellants is to be filed with the Clerk on or before February 21, 1992. The case is set for oral argument during the Session beginning February 24, 1992.

December 16, 1991

No. 91-860

Supreme Court, U.S.

FILED

JAN 16 1992

OFFICE OF THE CLERK

In the Supreme Court of the United States

OCTOBER TERM, 1991

UNITED STATES DEPARTMENT OF COMMERCE,
ET AL., APPELLANTS

v.

STATE OF MONTANA, ET AL.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA

JOINT APPENDIX
Volume II
(Exhibits)

MARK RACICOT
Attorney General

CLAY R. SMITH
Solicitor

ELIZABETH S. BAKER
Assistant Attorney General

State of Montana
Justice Building
215 North Sanders
Helena, Montana 59620-1401
(406) 444-2026

Counsel for Appellees

KENNETH W. STARR
Solicitor General
Department of Justice
Washington, D.C. 20530
(202) 514-2217
Counsel for Appellants

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EDITOR'S NOTE

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(1)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

*Counting for Representation: The Census and the Constitution**

People counting people

Counting people is an old American practice dating from colonial days. The need for a census of the new United States arose soon after the 13 Colonies broke their ties with Great Britain. The Revolutionary War (1775-83) costs had been high, and the new Nation had to find ways to pay the debt; one way was to divide it equally among the people. Another reason for a census was to establish a truly representative government to sit in the two Houses of Congress. While each State, regardless of size, would have two Senators in the Senate, Members of the House of Representatives would be apportioned—divided up—among the States according to their population. The only way to find out how many people there were was to count them, so for the first time in history, a nation decided to make a census part of its constitution. As adopted in 1787, the U.S. Constitution included these words in Article I, Section 2:

Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers. . . . The actual Enumeration shall be made within three Years after the first Meeting of the Congress of the United States, and within every subsequent Term of ten Years, in such Manner as they shall by Law direct.

When they wrote the Constitution, the Founding Fathers tried to find a proper balance in the way the

* Illustrations and Figure 3 omitted.

country was to be run. By counting people for both taxes and representation at the same time, they believed the census would be both accurate and fair. Had the census been only for tax purposes, the count probably would have been too low; if only for representation, each State would want as many Members in the House as possible and might report more people than it actually had. Counting for taxation, nevertheless, never did follow from the constitutional directive. On the other hand, the constitutional order—to apportion (or reapportion) representatives fairly among the States by a count of the population at least every 10 years—has been followed since 1790 and is the origin of today's decennial census. Based on the 1790 census, the original number of 65 House Members grew to 106, who represented a population of almost 4 million. When the House reached its present size of 435 in 1911, it represented 92 million people—the number from the census taken in 1910. The 1980 census counted over 226 million people for the same size House.

Ever since 1913, the Congress has delegated the authority to conduct the census to the Secretary of Commerce, and has permitted the Secretary to further delegate this authority to the Bureau of the Census. The Secretary must report counts for each State to the President within 9 months from Census Day (for most of this century, this has been April 1) of the year ending in "0." Within one week of the opening of the next session of the Congress, the President must send to the Clerk of the House of Representatives the census count for each State and the number of Representatives to which each State is entitled, following the method of apportionment Congress chose. Within 15 days, the Clerk of the House then notifies the Governor of each State how many Representatives that State will be entitled to in the next Congress.

Originally, Article I, Section 2 based apportionment on "the whole Number of free Persons, including those bound to Service for a Term of Years, and excluding Indians not taxed, three-fifths of all other Persons [Editor's note: slaves]." The practice of "Service for a Term of Years" soon died out. All American Indians have been considered to be taxed since the 1940's, and the Civil War of 1861-65 ended slavery and the three-fifths rule. The Constitution (Amendment 14) now refers to the "whole number" of persons, which the Census Bureau has taken to mean that all those persons who are residents of the United States should be included. Who are the exceptions and what are the special situations? Here are the Bureau of the Census's rules about them:

Two groups of people are specifically excluded from the census count. Persons living on the grounds of an embassy, ministry, legation, chancellery, or consulate are considered to be living on foreign soil, and therefore not residents of the United States. Also, citizens of foreign countries temporarily visiting or traveling in the United States are not counted in the census because they have not established a residence. On the other hand, Americans who are temporarily abroad on vacations, business trips, and the like are counted at their usual residence in the United States. Those Americans, however, who are overseas for an extended period (in the Armed Forces, working at civilian jobs, studying in foreign universities, etc.) generally are not included, because they are considered to have a "usual residence" outside of the United States.

Should undocumented or illegal aliens be included in the count for apportionment?

Congress debated this question on a number of occasions. The results support the statement of James Madison that the apportionment is to be "founded on the aggregate

number of inhabitants" of each State. To the Census Bureau, that means all people here as residents, whether or not they are citizens or even not legally admitted as immigrants. In the 1970's, it became apparent that large numbers of persons were illegally entering the United States. Believing that these numbers might affect the apportionment of the U.S. Congress, the Federation for American Immigration Reform (FAIR) brought suit in 1979 to make the Census Bureau keep illegal aliens out of the apportionment count. The suit was decided in favor of the Census Bureau, but on procedural grounds. Even so, the United States District Court did address the real issue of whether or not illegal aliens should be included in the census. The court noted that "the Constitution requires the counting of the whole number of persons" and that illegal aliens "are clearly persons." How many undocumented aliens were counted in the census? Although the census does not ask anyone whether he or she has the proper papers to be in this country, a reasonable estimate of these persons included in the 1980 census is about 2 million, or less than 1 percent of the U.S. population.

Where should people be counted?

As important as who should be included in the count is the question of where the counted persons should be listed as living. The basic rule laid down in the first census act of March 1, 1790 states:

. . . every person whose usual place of abode shall be in any family . . . shall be returned as of such family; and the name of every person, who shall be an inhabitant of any district, but without a settled place of residence, shall be inserted . . . in that division where he or she shall be. . . , and every person occasionally absent at the time of the enumeration, as belonging to that place in which he usually resides in the United States.

From that act came the term "usual residence" and the idea of counting persons where they live and sleep most of the time. That place is not necessarily the same as the person's legal residence, voting residence, or the place where he or she can be found on Census Day. There are rules to determine where a person should be counted for certain groups of people, among them members of the Armed Forces (counted as residents of the area where they are stationed), college students (counted where they are living while at college, either in a dormitory or in local housing), and persons in institutions (at the institution if long-term, or at home, generally, if short-term).

But what is the Census Bureau's role – officially?

An agency in the Department of Commerce, the Bureau of the Census conducts the census of population and housing in years ending in "0." Title 13 of the United States Code authorizes the census, outlines its timing and scope (and the scope of other Bureau censuses and surveys), requires the public to answer the questions and makes all the information confidential, and sets the penalties for disclosing this information.

The role of the Bureau of the Census in the apportionment process has two parts:

- To carry out the census itself – counting the Nation's people and recording information about them, such as age, race, and so on.
- To unofficially calculate the apportionment by determining the number of Representatives for each State based upon the results of that census.

How is apportionment calculated?

Three factors are needed to calculate apportionment:

- the population base
- the size of the body (the House of Representatives) to be divided
- a method to use for the calculation

The first two are fairly straightforward. The census obtains a count for each of the 50 States in accordance with the enumeration and residence rules discussed above, and the Congress determines the current size of the House of Representatives. From 1800 to 1840, the number of seats in the House increased as the population grew and new States were admitted to the Union. In 1850, for the first time, the number of seats was fixed before apportionment. The current House size, 435 members, has not been changed since the apportionment following the 1910 census, except for a temporary increase when Alaska and Hawaii became States in 1959.

How does one choose a method to calculate apportionment?

You might think, it's easy – once you know the number of people in the country and in a State and the number of representatives in the House. Don't you just divide the number in the country by the number in the State and give each of the 50 States that same share of the votes in the House? But what if there's a fraction left over? Can any State send a third of an elected official to Congress?

Generally, the assignment of seats for whole shares is not a problem, no matter what method is used; the assignment of seats for fractional shares is the issue that presents the problem. The apportionment procedure affects only the assignment of the 51st and successive seats, since the Constitution provides that each State must have at least one representative.

Finding a method that would solve the fraction problem adequately was a concern of Congress from 1792 until the

early 1900's, during which time mathematicians, statisticians, and politicians came up with different ways (that had their own problems), some of which were never used. (See fig. 1.)

The 1792 Apportionment Act was known as the Jefferson plan, named for Thomas Jefferson, then Secretary of State in President George Washington's cabinet. This plan gave one Representative for every 33,000 people in each State, the fractions—or remainders—being disregarded. Essentially the same method was used after each of the next four censuses, but with progressively larger numbers to deal with.

In 1840, a change in the method of apportionment resulted from lengthy Senate debates on reapportionment in 1832 led by Daniel Webster of Massachusetts. He maintained that Jefferson's method was unconstitutional because it discriminated against small States by disregarding the fractions. Webster's position was that the Constitution required Congress to apportion Representatives "as near as may be" to the population of each State. Therefore, an additional Member was awarded for a fraction of over one-half. This practice, as Jefferson's had, also resulted in a House of Representatives of varying size, depending upon the ratio chosen and the population of each State. In the Nation's early years, increasing the size of the House of Representatives after each census was not a problem. As new States joined the union, and as the population of existing States grew, more members were added as needed, but it became apparent that continued growth in the size of the House would begin to strain its workings.

Samuel F. Vinton, a Representative from Ohio during the middle 1800's, was responsible for the method used in 1850. It seemed to be the answer to the problem of reapportionment because it appeared to be the fairest way to distribute a fixed number of seats. The Vinton method

Figure 1. Deciphering the Methods

Five apportionment methods use formulas in which the State's total population (P) is the numerator and the divisor creates a numerical value that determines each State's priority for its next seat. In the divisors below, "n" represents the number of the State's next seat. The different divisors are assigned to achieve different tests.

Here is a summary of the divisor methods, the formulas, and their tests.

Method	Divisor	Test
Equal Proportions (current method)	$\sqrt{n(n-1)}$	Smallest percent difference between number of persons per representative and smallest percent difference between number of representatives per person
Major Fractions	$\frac{n-1}{2}$	Smallest absolute difference between number of representatives per person
Harmonic Means	$\frac{2(n-1)n}{(n-1)+n}$	Smallest absolute difference between number of person per representative
Smallest Divisors	$n-1$	Smallest absolute "representation surplus"
Greatest Divisors	n	Smallest absolute "representation deficiency"

Source: Adapted from Sam T. Davis, "Reapportionment: Numerical Politics." *American Demographics*, Vol. 3, No. 10 (November 1981), p. 27.

worked this way in 1850: A House size of 233 was selected. The total population was divided by 233 to determine the number by which each State's population would be divided. The resulting "quotas"—each State's exact share in the House—were used to assign the 233 seats. First, each State received the whole number of the quota. The remaining seats needed to make 233 were allocated by giving the States with the largest fractions each a seat until all 233 seats were assigned.

Vinton's method served for several decades. After the census of 1880, however, people noticed that if the size of the House increased from its then current size of 293 to 299, Alabama would not change from its 8-member delegation. But if the House size were to be fixed instead at 300, Alabama would actually lose a member and have only 7. Fortunately for Alabama, the size of the House was set at 332, and Alabama maintained an 8-member delegation. This troublesome characteristic of the Vinton method was named the "Alabama Paradox" (under which a State would be entitled to fewer seats if the size of the House were increased and the population of all State remained constant).

In 1910, Congress adopted a more refined and complex version of the Vinton method, known as Major Fractions. Some call this "Webster's method." Major Fractions, which was also used in 1930, is one of several methods that use a priority list to assign representatives to States. (Congress could not decide on an apportionment plan based on the 1920 census, but later passed a bill that made reapportionment automatic even if no action was taken.) The present method of Equal Proportions, adopted in 1941 (Title 2, Section 2a, United States Code) is another system that uses a priority list. The priority value is calculated by dividing the population of the State by a divisor. (See fig 1.) Each of the priority list methods has a differ-

ent divisor, designed to reach certain objectives. For example, following the 1980 results, each of the 50 States was awarded one seat out of the current 435 total. Then, the 51st seat went to the State that had the highest priority value for its second seat. In computing the apportionment from the 1980 State totals, seat 51 went to California, whose priority value under the method of Equal proportions was 16,736,300. The next seat, number 52, went to New York, with a second-seat priority value of 12,414,877, and Texas received seat number 53, with a priority value of 10,060,986. (See fig. 2.)

Once the number of seats assigned to the individual States is determined, the task of drawing the new congressional districts is generally that of each State legislature. This process of redistricting has required much legislative action.

Redistricting

When setting up or changing the boundaries of congressional or legislative districts, there are two ways to control the districts for political purposes—by geography or by population. Almost from the beginning, election districts began to take on all sorts of strange shapes and population sizes to favor some particular group or party, not always in keeping with the Constitution's principle of equal representation.

How do you tinker with geography?

A practice sometimes followed by some State legislatures when redistricting is called gerrymandering, after Elbridge Gerry, the Governor of Massachusetts in 1812, when Essex County's senatorial election districts were drawn to make sure his party's candidate was elected. The map that resulted looked like a *salamander*. One of

Figure 2. Apportionment Mini-Guide

How does the method of Equal Proportions work? California receives the 51st seat because it is the most populous State. Why does California receive the 54th seat (its third) before Pennsylvania receives its second?

The formula is: $\frac{P}{\sqrt{n(n-1)}}$

where "P" is the State population and "n" is the number of seats a State would have if it gained a seat. Thus, each State's claim to a seat (the priority value) would be the total State population divided by the geometric means of its current and next seats ($\sqrt{n(n-1)}$).

Listed below are the first 10 seats awarded on the basis of the method of equal proportions in 1980. The list continues in this fashion until the 385 seats (numbers 51 through 435) have been allocated. (Each State got one of the first 50 seats.)

Seat	State	1980 population	Seat number	Multiplier*	Priority value
51	California	23,668,562	2	0.70710678	16,736,200
52	New York	17,557,288	2	0.70710678	12,414,877
53	Texas	14,228,383	2	0.70710678	10,060,986
54	California	23,668,562	3	0.40824829	9,682,650
55	Pennsylvania	11,866,728	2	0.70710678	8,391,044
56	Illinois	11,418,461	2	0.70710678	8,074,071
57	Ohio	10,797,419	2	0.70710678	7,634,928
58	New York	17,557,288	3	0.40824829	7,167,733
59	Florida	9,739,992	2	0.70710678	6,887,214
60	California	23,668,562	4	0.28867513	6,832,525

Note: * The multiplier is merely the reciprocal of the geometric mean

$$\left(\frac{\sqrt{n(n-1)}}{1} \right)$$

Source: Penelope E. Harvison et al. "Drawing the Lines—By the Numbers: The Statistical Foundations of the Electoral Process." *Government Information Quarterly*, Vol. 2, No. 4 (November 1985), p. 395. Statistics are taken from the 1980 Decennial Census.

Gerry's critics called it a *gerrymander* and the name stuck. In 1842, Congress required that congressional districts be contiguous (no separate parts), but some States got around this by connecting the parts with strips of land that might or might not contain people; others created long, narrow districts that wound across a State. In 1872, Congress said that districts had to be compact, but this also was interpreted in different ways.

How about population?

In the history of redistricting, if you wanted to discriminate against certain people because of their race, national origin, beliefs, income, or the way they vote, you made sure any such groups either were divided up among several districts, or that they were outnumbered by the people you wanted to favor. This was done even after 1901, when Congress said that districts not only had to be compact but also approximately equal in population. In any case, all of these provisions were dropped in 1929.

How was representation brought back into constitutional "balance"?

For over 30 years after 1929, some States established new districts with little or no attention to "balance." They simply failed to redistrict despite major population movements or elected "members at large" to avoid redistricting. The result was that a district with a large population would have no more political "clout" than one that had few people: Each district still had only one representative.¹

¹ Some examples of great disparities in congressional district population sizes in modern U.S. history include: New York (1930) 776,425 in the largest district and 90,671 in the smallest district; Ohio (1946) 698,650 and 163,561; Illinois (1946) 914,053 and 112,116; Arkansas (1946) 423,152 and 177,476; Texas (1962) 951,527 and 216,371; Michigan (1962) 802,994 and 177,431; Maryland (1962) 711,045 and 243,570; and South Dakota (1962) 497,669 and 182,845.

In a series of decisions beginning in 1962, the U.S. Supreme Court restored the equal-population rule and extended it to State and local legislative districts as well. In the case of *Wesberry v. Sanders* (1964), for example, the Court ruled that "as nearly as practicable, one man's vote in a congressional election is to be worth as much as another's." After the Voting Rights Act was passed in 1964, Federal courts held that using race to discriminate in drawing district boundaries was unconstitutional; in 1986, the U.S. Supreme Court stated that redistricting plans could not be challenged only because the proposed boundaries might discriminate against parts of the total population, such as Blacks or persons of Spanish origin. Thus race *and* population had to be considered in redistricting at any level.

What is the Census Bureau's role in the redistricting process?

When there has been a change in population or its distribution within States, almost all States use census data in altering their congressional and legislative district boundaries.

The States themselves — and not the Census Bureau — set these boundaries. Once they are law, however, the Bureau adds up the decennial census population of each congressional district and publishes the figures for official use.

The States, then, need the census and the Census Bureau's help in determining population counts for small areas. Congress passed legislation in December 1975, Public Law 94-171, which set up a voluntary program between the Bureau and States that wished to receive population tabulations for election precincts and certain other geographic areas. Those responsible for the legislative apportionment or redistricting of each State were to submit to the Secretary of Commerce a plan identifying the geo-

graphic areas for which they wanted specific tabulations of population from the 1980 census. This plan had to be submitted not later than 3 years before the census date, developed in a nonpartisan manner, and meet Census Bureau technical guidelines. In February and March 1981, the Bureau delivered the "Public Law 94-171 Population Counts" on computer tape, microfiche, and paper to 23 participating States and similar data to the other 27 States. In addition to the total population, there were counts of people in five race groups and of Hispanic/Spanish origin. The data covered the major geographic areas recognized in the census — States, counties, county subdivisions, places, census tracts (or block numbering areas), enumeration districts or block groups, census blocks, and election precincts where asked for, together with the numeric code for each area to help with the calculations. These statistics, which anyone could purchase, were for approximately 2.5 million blocks and over 300,000 additional small areas.

For 1990, the Census Bureau plans to block-number the entire country and to have counts for each of 8 to 12 million blocks. By offering State population figures by block as well as voting district, the legislators will be able to be much more flexible in creating redistricting plans to satisfy political considerations and legal guidelines. The 21st Decennial Census will be taken as of April 1, 1990. By April 1, 1991, the Census Bureau will deliver copies of census block maps, the 1990 Public Law 94-171 tape files, and prints of these data to the Governor and legislature of each State.

Much of the success of the 1980 redistricting data program and the 1990 program that follows is the result of a decade-long partnership involving State officials, the National Conference of State Legislatures, and the Census Bureau.

Aside from its direct goals, the program has served as an example of how State and Federal governments can work together to identify and fulfill a critical constitutional need.

What does the future hold for census data and elections?

The relationship between census statistics and representation has become more closely knit in the last two decades, largely because of the redistricting data program. Census Bureau planners are looking to the future and the increasing use of technological developments to meet the time requirements that States have to redraw their districts.

—Duplicating and providing the enormous number of maps for everyone engaged in the redistricting process has been expensive and time-consuming. The automated geographic system the Census Bureau is developing should make it easier and faster to produce maps with voting district boundaries. As States begin to have their own computerized map files, the exchange of current geographic information should be made more convenient.

The Bureau of the Census has recognized that it must be alert to the social and governmental changes that affect the people of the United States and the way in which they are represented. If there are new laws and rules, the Bureau may need to provide the States with more statistics; and as new developments occur in individual States and legislatures, it may need to change its procedures to adapt to new needs. The Census Bureau's connection to representation is a vital part of the constitutional system, and the commitment to work with the individual States in this basic governmental process is most important.

Summary

Given the laws and court decisions that require numbers and information about people, the importance of the decennial census cannot be overstated. The completeness and accuracy of population counts from every section of the country directly affect every citizen's voting strength. States use census information to define their congressional and legislative districts. If there is a disproportionate undercount in any area, the results will correspondingly lessen the effect of the people's vote in that area.

Just as "being counted" spelled equal representation in the Constitution in 1787, it means the same today. At a recent meeting of city officials planning for the 21st census in 1990, a demographer from Anchorage, Alaska, said, "If you're not counted, you're not represented, and if you're not represented, you're not going to have the same clout as others."

Today the census is even more important than it was 200 years ago. Equal representation is for everyone, citizen or not, and everyone must be counted for that. But the census results provide more than just the figures for apportionment. Distributing Federal and State funds among some 39,000 local governments also depends on census data. In addition, social and economic data are used in marketing studies and in locating new businesses; academic research; Federal, State, and local planning (such as for child-care and senior-centers, schools, and transportation); affirmative action programs; and many other activities. Finally, the people of the United States expect information about themselves, their community, State, and Nation. Much of that information is available only through the census, which remains distinctively a cornerstone of the Constitution itself.

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1990 POPULATION AND NUMBER OF REPRESENTATIVES, BY STATE

DEC 26 1990

NOTE: The population counts set forth herein are subject to possible correction for undercount or overcount. The United States Department of Commerce is considering whether to correct these counts and will publish corrected counts, if any, not later than July 15, 1991.

TOTAL POPULATION¹ 249,432,592

STATE	APPORTIONMENT POPULATION	NUMBER OF REPRESENTATIVES BASED ON THE 1990 CENSUS	CHANGE FROM 1980 APPORTIONMENT
UNITED STATES TOTAL ²	249,432,793	433	
Alabama	6,062,408	7	-
Alaska	531,947	1	-
Arizona	3,677,985	6	+1
Arkansas	2,542,219	4	-
California	29,839,258	52	+7
Colorado	3,387,912	6	-
Connecticut	3,295,649	6	-
Delaware	648,696	1	-
Florida	13,083,362	23	+4
Georgia	6,508,619	11	+1
Hawaii	1,115,276	2	-
Idaho	1,011,906	2	-
Illinois	11,446,662	20	-2
Indiana	5,344,278	10	-
Iowa	2,787,626	3	+1
Kansas	2,489,609	4	+1
Kentucky	3,698,949	6	+1
Louisiana	4,238,216	7	+1
Maine	1,233,223	2	-
Maryland	4,798,622	8	-
Massachusetts	6,029,051	10	+1
Michigan	9,328,786	16	-2
Minnesota	4,367,029	8	-
Mississippi	2,586,443	5	-
Missouri	5,137,806	9	-
Montana	883,685	1	+1
Nebraska	1,586,617	3	-
Nevada	1,206,192	2	-
New Hampshire	1,113,915	2	-
New Jersey	7,748,626	13	+1
New Mexico	1,521,779	3	-
New York	18,066,303	31	+3
North Carolina	6,537,630	12	+1
North Dakota	641,366	1	-
Ohio	10,887,323	19	-2
Oklahoma	3,157,606	6	-
Oregon	2,833,733	5	-
Pennsylvania	11,926,718	21	-2
Rhode Island	1,083,986	2	-
South Carolina	3,505,787	6	-
South Dakota	699,999	1	-
Tennessee	4,896,641	9	-
Texas	17,059,803	30	+3
Utah	1,727,786	3	-
Vermont	566,966	1	-
Virginia	6,216,348	11	+1
Washington	4,887,941	9	+1
West Virginia	1,801,623	3	+1
Wisconsin	6,906,763	9	-
Wyoming	435,973	1	-

¹ Total population includes enumerations for the resident population as collected in the 21st decennial census under title 13, United States Code, for the 50 States and the District of Columbia and counts of military and Federal civilian employees and their dependents overseas as reported by various Federal agencies.

² Total population, net including the District of Columbia.

The population counts set forth herein are subject to possible revision for undercount or overcount. The United States Department of Commerce is considering whether to correct these counts and will publish corrected counts, if any, not later than July 15, 1991.

TOTAL POPULATION (1) 249,632,692

STATE	APPORTIONMENT POPULATION	NUMBER OF REPRESENTATIVES 1980 BASED ON THE APPORTIONMENT 1990 CENSUS	CHANGE FROM
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UNITED STATES TOTAL(2)	249,022,783	435	
Alabama	4,062,608	7	-
Alaska	551,947	1	-
Arizona	3,677,985	6	+1
Arkansas	2,362,239	4	-
California	29,839,250	52	+7
Colorado	3,307,912	6	-
Connecticut	3,295,669	6	-
Delaware	668,696	1	-
Florida	13,003,362	23	+4
Georgia	6,508,419	11	+1
Hawaii	1,115,276	2	-
Idaho	1,011,986	2	-
Illinois	11,466,682	20	-2
Indiana	5,564,228	10	-
Iowa	2,787,424	5	-1
Kansas	2,405,600	4	-1
Kentucky	3,698,969	6	-1
Louisiana	4,238,216	7	-1
Maine	1,233,223	2	-
Maryland	4,798,622	8	-
Massachusetts	6,029,051	10	-1
Michigan	9,328,784	16	-2
Minnesota	4,387,029	8	-
Mississippi	2,586,444	5	-
Missouri	5,137,804	9	-
Montana	803,655	1	-1
Nebraska	1,584,617	3	-
Nevada	1,206,152	2	-
New Hampshire	1,113,915	2	-
New Jersey	7,748,634	13	-1
New Mexico	1,521,779	3	-
New York	18,044,505	31	-3
North Carolina	6,657,630	12	+1
North Dakota	641,364	1	-
Ohio	10,887,325	19	-2
Oklahoma	3,157,604	6	-
Oregon	2,853,733	5	-
Pennsylvania	11,924,710	21	-2
Rhode Island	1,005,984	2	-
South Carolina	3,505,707	6	-
South Dakota	699,999	1	-
Tennessee	4,896,641	9	-
Texas	17,059,805	30	+3
Utah	1,727,784	3	-
Vermont	564,964	1	-
Virginia	6,216,568	11	+1
Washington	4,887,941	9	+1

~~Virginia~~
~~Washington~~
~~D.C.~~

1,301,623	3	-
4,906,745	9	-
455,975	1	-

(1) Total population includes enumerations for the resident population as collected in the 21st decennial census under Title 13, United States Code, for the 50 States and the District of Columbia and counts of military and Federal civilian employees and their dependents overseas as reported by various Federal agencies.

(2) Total population, not including the District of Columbia.

EXHIBIT D

1991 PRIORITY ASSIGNMENTS

HILL FORMULA - $\text{SQRT}[n(n-1)]$

SEQ	ST	SEAT	PRIORITY
51	CA	2	210995360
52	NY	2	127593919
53	CA	3	121818228
54	TX	2	120631038
55	FL	2	91947655
56	CA	4	86138495
57	PA	2	84320433
58	IL	2	81081686
59	OH	2	76985013
60	NY	3	73666383
61	TX	3	69646362
62	CA	5	66722591
63	MI	2	65964464
64	NJ	2	54791117
65	CA	6	54478768
66	FL	3	53086003
67	NY	4	52089999
68	TX	4	49247415
69	PA	3	48682425
70	NC	2	47076553
71	IL	3	46812533
72	CA	7	46042962
73	GA	2	46021472
74	OH	3	44447318
75	VA	2	43957774
76	MA	2	42631829
77	NY	5	40348740
78	CA	8	39874375
79	IN	2	39345034
80	TX	5	38146884

EXHIBIT D—Continued

1991 PRIORITY ASSIGNMENTS

HILL FORMULA — $\text{SQRT}[n(n-1)]$

SEQ	ST	SEAT	PRIORITY
81	MI	3	38084601
82	FL	4	375374473
83	MO	2	36329761
84	CA	9	35165893
85	WI	2	34695927
86	TN	2	34624481
87	WA	2	34562962
88	PA	4	34423673
89	MD	2	33931382
90	IL	4	33101460
91	NY	6	32944608
92	NJ	3	31633666
93	CA	10	31453331
94	OH	4	31429000
95	TX	6	31146800
96	MN	2	31020980
97	LA	2	29968713
98	FL	5	29076401
99	AL	2	28726977
100	CA	11	28450609
101	NY	7	27843276
102	NC	3	27179661
103	MI	4	26929880
104	PA	5	26664462
105	GA	3	26570509
106	TX	7	26323851
107	KY	2	26155661
108	AZ	2	26007281
109	CA	12	25971734
110	IL	5	25640280

EXHIBIT D—Continued

1991 PRIORITY ASSIGNMENTS

HILL FORMULA — $\text{SQRT}[n(n-1)]$

SEQ	ST	SEAT	PRIORITY
111	VA	3	25379033
112	SC	2	24774950
113	MA	3	24613498
114	OH	5	24344799
115	NY	8	24112984
116	CA	13	23890520
117	FL	6	23740782
118	CO	2	23390470
119	CT	2	23303899
120	TX	8	22797123
121	IN	3	22715866
122	NJ	4	22368380
123	OK	2	22327632
124	CA	14	22118324
125	PA	6	21771442
126	NY	9	21265653
127	MO	3	20974997
128	IL	6	20935201
129	MI	5	20859795
130	CA	15	20591039
131	OR	2	20178940
132	TX	9	20105173
133	FL	7	20064623
134	WI	3	20031703
135	TN	3	19990453
136	WA	3	19954936
137	OH	6	19877445
138	IA	2	19710064
139	MD	3	19590292
140	CA	16	19261153

EXHIBIT D—Continued

1991 PRIORITY ASSIGNMENTS

HILL FORMULA— $\text{SQRT}[n(n-1)]$

SEQ	ST	SEAT	PRIORITY
141	NC	4	19218922
142	NY	10	19020578
143	GA	4	18788187
144	PA	7	18400227
145	MS	2	18288914
146	CA	17	18092703
147	TX	10	17982613
148	VA	4	17945686
149	MN	3	17909971
150	IL	7	17693475
151	KS	2	17575846
152	MA	4	17404371
153	FL	8	17376473
154	NJ	5	17326472
155	LA	3	17302444
156	NY	11	17204761
157	CA	18	17057964
158	MI	6	17031951
159	OH	7	16799507
160	AR	2	16703552
161	AL	3	16585528
162	TX	11	16265886
163	CA	19	16135219
164	IN	4	16062543
165	PA	8	15935064
166	NY	12	15705726
167	FL	9	15324609
168	IL	8	15322998
169	CA	20	15307212
170	KY	3	15100978

EXHIBIT D—Continued

1991 PRIORITY ASSIGNMENTS

HILL FORMULA— $\text{SQRT}[n(n-1)]$

SEQ	ST	SEAT	PRIORITY
171	AZ	3	15015311
172	NC	5	14886913
173	TX	12	14848654
174	MO	4	14831563
175	CA	21	14560063
176	GA	5	14553267
177	OH	8	14548800
178	NY	13	14447166
179	MI	7	14394626
180	SC	3	14303824
181	WI	4	14164553
182	NJ	6	14147005
183	TN	4	14135385
184	WA	4	14110270
185	PA	9	14053406
186	VA	5	13900669
187	CA	22	13882476
188	MD	4	13852429
189	FL	10	13706747
190	TX	13	13658775
191	IL	9	13513614
192	CO	3	13504494
193	MA	5	13481368
194	CT	3	13454512
195	NY	14	13375477
196	CA	23	13265165
197	OK	3	12890864
198	OH	9	12830836
199	WV	2	12739413
200	CA	24	12700428
201	MN	4	12664262

EXHIBIT D—Continued

1991 PRIORITY ASSIGNMENTS

HILL FORMULA — $\text{SQRT}[n(n-1)]$

SEQ	ST	SEAT	PRIORITY
202	TX	14	12645569
203	PA	10	12569748
204	MI	8	12466112
205	NY	15	12451891
206	IN	5	12441992
207	FL	11	12398219
208	LA	4	12234676
209	UT	2	12217136
210	CA	25	12181823
211	NC	6	12155114
212	IL	10	12086944
213	NJ	7	11956402
214	GA	6	11882693
215	TX	15	11772384
216	AL	4	11727739
217	CA	26	11703917
218	OR	3	11650316
219	NY	16	11647678
220	MO	5	11488479
221	OH	10	11476248
222	IA	3	11379611
223	PA	11	11369765
224	VA	6	11349848
225	FL	12	11317974
226	CA	27	11262099
227	NB	2	11204934
228	TX	16	11012057
229	MA	6	11007491
230	MI	9	10994077
231	WI	5	10971815

EXHIBIT D—Continued

1991 PRIORITY ASSIGNMENTS

HILL FORMULA — $\text{SQRT}[n(n-1)]$

SEQ	ST	SEAT	PRIORITY
232	TN	5	10949222
233	NY	17	10941088
234	IL	11	10933052
235	WA	5	10929768
236	CA	28	10852430
237	NM	2	10760603
238	MD	5	10730045
239	KY	4	10678004
240	AZ	4	10617428
241	MS	3	10559109
242	CA	29	10471524
243	FL	13	10411022
244	OH	11	10380657
245	PA	12	10379128
246	NJ	8	10354548
247	TX	17	10344026
248	NY	18	10315357
249	NC	7	10272946
250	IN	6	10158844
251	KS	3	10147420
252	CA	30	10116453
253	SC	4	10114331
254	GA	7	10042709
255	IL	12	9980466
256	MI	10	9833402
257	MN	5	9809695
258	CA	31	9784676
259	NY	19	9757351
260	TX	18	9752441
261	AR	3	9643800

EXHIBIT D—Continued

1991 PRIORITY ASSIGNMENTS

HILL FORMULA — $\text{SQRT}[n(n-1)]$

SEQ	ST	SEAT	PRIORITY
262	FL	14	9638733
263	VA	7	9592373
264	CO	4	9549119
265	PA	13	9547409
266	CT	4	9513777
267	LA	5	9476939
268	OH	12	9476200
269	CA	32	9473971
270	MO	6	9380304
271	MA	7	9303028
272	NY	20	9256636
273	TX	19	9224886
274	CA	33	9182394
275	IL	13	9180693
276	NJ	9	9131853
277	OK	4	9115218
278	AL	5	9084268
279	FL	15	8973172
280	WI	6	8958450
281	TN	6	8940002
282	WA	6	8924119
283	CA	34	8908231
284	NC	8	8896632
285	MI	11	8894647
286	PA	14	8839183
287	NY	21	8804817
288	MD	6	8761045
289	TX	20	8751495
290	ME	2	8720204
291	OH	13	8716836

EXHIBIT D—Continued

1991 PRIORITY ASSIGNMENTS

HILL FORMULA — $\text{SQRT}[n(n-1)]$

SEQ	ST	SEAT	PRIORITY
292	GA	8	8697241
293	CA	35	8649966
294	IN	7	8585790
295	NV	2	8528783
296	IL	14	8499670
297	CA	36	8406256
298	NY	22	8395064
299	FL	16	8393634
300	TX	21	8324333
301	VA	8	8307238
302	KY	5	8271146
303	OR	4	8238018
304	PA	15	8228832
305	AZ	5	8224225
306	CA	37	8175904
307	NJ	10	8167777
308	MI	12	8119664
309	OH	14	8070222
310	MA	8	8056658
311	IA	4	8046600
312	NY	23	8021761
313	MN	6	8009583
314	CA	38	7957841
315	TX	22	7936940
316	MO	7	7927804
317	IL	15	7912762
318	HI	2	7886178
319	FL	17	7884446
320	NH	2	7876569
321	NC	9	7846092

EXHIBIT D - Continued

1991 PRIORITY ASSIGNMENTS

HILL FORMULA - $\text{SQRT}[n(n-1)]$

SEQ	ST	SEAT	PRIORITY
322	SC	5	7834527
323	CA	39	7751108
324	LA	6	7737888
325	PA	16	7697367
326	NY	24	7680251
327	GA	9	7670245
328	TX	23	7584008
329	WI	7	7571272
330	TN	7	7555681
331	CA	40	7554846
332	WA	7	7542257
333	OH	15	7512968
334	MI	13	7469005
335	MS	4	7466418
336	IN	8	7435512
337	FL	18	7433527
338	AL	6	7417274
339	MD	7	7404435
340	IL	16	7401711
341	CO	5	7396716
342	NJ	11	7388033
343	CT	5	7369340
344	CA	41	7368278
345	NY	25	7366638
346	WV	3	7355103
347	VA	9	7326296
348	TX	24	7261135
349	PA	17	7230418
350	CA	42	7190703
351	KS	4	7175309

EXHIBIT D - Continued

1991 PRIORITY ASSIGNMENTS

HILL FORMULA - $\text{SQRT}[n(n-1)]$

SEQ	ST	SEAT	PRIORITY
352	ID	2	7155822
353	RI	2	7113381
354	MA	9	7105305
355	NY	26	7077637
356	OK	5	7060617
357	UT	3	7053567
358	FL	19	7031413
359	OH	16	7027738
360	CA	43	7021486
361	NC	10	7017758
362	TX	25	6964636
363	IL	17	6952697
364	MI	14	6914955
365	MO	8	6865679
366	GA	10	6860476
367	CA	44	6860051
368	AR	4	6819197
369	PA	18	6816903
370	NY	27	6810460
371	MN	7	6769333
372	KY	6	6753363
373	NJ	12	6744320
374	AZ	6	6715051
375	CA	45	6705873
376	TX	26	6691406
377	FL	20	6670584
378	OH	17	6601410
379	NY	28	6562723
380	CA	46	6558473
381	IN	9	6557506

EXHIBIT D - Continued

1991 PRIORITY ASSIGNMENTS

HILL FORMULA - $\text{SQRT}[n(n-1)]$

SEQ	ST	SEAT	PRIORITY
382	WI	8	6556914
383	IL	18	6555066
384	VA	10	6552838
385	TN	8	6543412
386	LA	7	6539709
387	WA	8	6531786
388	NB	3	6469172
389	PA	19	6448145
390	TX	27	6438809
391	MI	15	6437473
392	CA	47	6417414
393	MD	8	6412428
394	SC	6	6396865
395	OR	5	6381141
396	MA	10	6355178
397	NC	11	6347801
398	FL	21	6344991
399	NY	29	6332380
400	CA	48	6282295
401	AL	7	6268740
402	IA	5	6232870
403	OH	18	6223869
404	NM	3	6212637
405	GA	11	6205534
406	TX	28	6204591
407	NJ	13	6203872
408	IL	19	6200472
409	CA	49	6152750
410	NY	30	6117660
411	PA	20	6117247

EXHIBIT D - Continued

1991 PRIORITY ASSIGNMENTS

HILL FORMULA - $\text{SQRT}[n(n-1)]$

SEQ	ST	SEAT	PRIORITY
412	MO	9	6054960
413	FL	22	6049712
414	CO	6	6039393
415	CA	50	6028439
416	MI	16	6021704
417	CT	6	6017041
418	TX	29	5986818
419	VA	11	5927265
420	NY	31	5917026
421	CA	51	5909052
422	OH	19	5887191
423	IL	20	5882284
424	IN	10	5865211
425	MN	8	5862414
426	PA	21	5818663
427	NC	12	5794723
428	CA	52	5794302
429	TX	30	5783816
430	MS	5	5783462
431	WI	9	5782654
432	FL	23	5780700
433	TN	9	5770747
434	OK	6	5764970
435	WA	9	5760494
436	MA	11	5748475
437	NJ	14	5743670
438	NY	32	5729136
439	KY	7	5707633
440	CA	53	5683924
441	MT	2	5682699

EXHIBIT D - Continued

1991 PRIORITY ASSIGNMENTS

HILL FORMULA - $\text{SQRT}[n(n-1)]$

SEQ	ST	SEAT	PRIORITY
442	AZ	7	5675254
443	GA	12	5664852
444	LA	8	5663554
445	MI	17	5656406
446	MD	9	5655230
447	IL	21	5595168
448	TX	31	5594130
449	OH	20	5585080
450	CA	54	5577674
451	KS	5	5557971
452	NY	33	5552813
453	PA	22	5547877
454	FL	24	5534598
455	CA	55	5475322
456	AL	8	5428888
457	TX	32	5416494
458	MO	10	5415721
459	VA	12	5410828
460	SC	7	5406337
461	NY	34	5387020
462	CA	56	5376660
463	NJ	15	5347066
464	IL	22	5334783
465	MI	18	5332911
466	NC	13	5330370
467	OH	21	5312471
468	FL	25	5308600
469	IN	11	5305283
470	PA	23	5301180
471	AR	5	5282127

EXHIBIT D - Continued

1991 PRIORITY ASSIGNMENTS

HILL FORMULA - $\text{SQRT}[n(n-1)]$

SEQ	ST	SEAT	PRIORITY
472	CA	57	5281490
473	TX	33	5249792
474	MA	12	5247615
475	NY	35	5230841
476	GA	13	5210906
477	OR	6	5210180
478	WV	4	5200843
479	CA	58	5189631
480	WI	10	5172163
481	MN	9	5170163
482	TN	10	5161513
483	WA	10	5152342
484	CO	7	5104219
485	CA	59	5100913
486	FL	26	5100338
487	IL	23	5097562
488	TX	34	5093046
489	IA	6	5089117
490	CT	7	5085328
491	NY	36	5083463
492	PA	24	5075494
493	OH	22	5065242
494	MD	10	5058192
495	MI	19	5044429
496	ME	3	5034612
497	CA	60	5015177
498	NJ	16	5001722
499	LA	9	4994786
500	UT	4	4987625

EXHIBIT E

1991 PRIORITY ASSIGNMENTS

DEAN FORMULA - $[2(N - 1)N]/[(N - 1 + N)]$

SEQ	ST	SEAT	PRIORITY
51	CA	2	22379438
52	NY	2	13533379
53	TX	2	12794854
54	CA	3	12433021
55	FL	2	9752522
56	PA	2	8943532
57	CA	4	8703115
58	IL	2	8600012
59	OH	2	8165494
60	NY	3	7518544
61	TX	3	7108252
62	MI	2	6996588
63	CA	5	6713831
64	NJ	2	5811476
65	CA	6	5470529
66	FL	3	5418068
67	NY	4	5262981
68	NC	2	4993222
69	TX	4	4975776
70	PA	3	4968629
71	GA	2	4881314
72	IL	3	4777784
73	VA	2	4662426
74	CA	7	4617979
75	OH	3	4536385
76	MA	2	4521788
77	IN	2	4173171
78	NY	5	4060014
79	CA	8	3996328
80	MI	3	3886993

EXHIBIT E - Continued

1991 PRIORITY ASSIGNMENTS

DEAN FORMULA - $[2(N - 1)N]/[(N - 1 + N)]$

SEQ	ST	SEAT	PRIORITY
81	MO	2	3853353
82	TX	5	3838456
83	FL	4	3792647
84	WI	2	3680059
85	TE	2	3672481
86	WA	2	3665956
87	MD	2	3598966
88	CA	9	3522689
89	PA	4	3478040
90	IL	4	3344449
91	NY	6	3308159
92	MN	2	3290272
93	NJ	3	3228598
94	LA	2	3178662
95	OH	4	3175470
96	CA	10	3149699
97	TX	6	3127631
98	AL	2	3046956
99	FL	5	2925756
100	CA	11	2848292
101	NY	7	2792602
102	KY	2	2774227
103	NC	3	2774012
104	AZ	2	2758489
105	MI	4	2720895
106	GA	3	2711841
107	PA	5	2683060
108	TX	7	2640208
109	SC	2	2627780
110	CA	12	2599632

EXHIBIT E—Continued

1991 PRIORITY ASSIGNMENTS

DEAN FORMULA — $[2(N - 1)N]/[(N - 1) + N]$

SEQ	ST	SEAT	PRIORITY
111	VA	3	2590237
112	IL	5	2580003
113	MA	3	2512105
114	CO	2	2480934
115	CT	2	2471752
116	OH	5	2449648
117	NY	8	2416675
118	CA	13	2390966
119	FL	6	2383950
120	OK	2	2368203
121	IN	3	2318428
122	TX	8	2284795
123	NJ	4	2260018
124	CA	14	2213351
125	PA	6	2186197
126	MO	3	2140752
127	OR	2	2140300
128	NY	9	2130254
129	IL	6	2102225
130	MI	5	2098976
131	IA	2	2090568
132	CA	15	2060329
133	WI	3	2044477
134	TE	3	2040267
135	WA	3	2036642
136	TX	9	2014005
137	FL	7	2012425
138	MD	3	1999426
139	OH	6	1996010
140	NC	4	1941809

EXHIBIT E—Continued

1991 PRIORITY ASSIGNMENTS

DEAN FORMULA — $[2(N - 1)N]/[(N - 1) + N]$

SEQ	ST	SEAT	PRIORITY
141	MS	2	1939832
142	CA	16	1927118
143	NY	10	1904698
144	GA	4	1898289
145	KS	2	1864200
146	PA	7	1845491
147	MN	3	1827929
148	VA	4	1813166
149	CA	17	1819102
150	TX	10	1800757
151	IL	7	1774606
152	AR	2	1771679
153	LA	3	1765923
154	MA	4	1758473
155	NJ	5	1743443
156	FL	8	1741522
157	NY	11	1722430
158	MI	6	1710277
159	CA	18	1706493
160	AL	3	1692753
161	OH	7	1684943
162	TX	11	1628436
163	IN	4	1622900
164	CA	19	1614111
165	PA	8	1597059
166	NY	12	1572059
167	KY	3	1541237
168	IL	8	1535716
169	FL	9	1535119
170	AZ	3	1532494

EXHIBIT E - Continued

1991 PRIORITY ASSIGNMENTS

DEAN FORMULA - $[2(N - 1)N]/[(N - 1 + N)]$

SEQ	ST	SEAT	PRIORITY
171	CA	20	1531225
172	MG	4	1498526
173	NC	5	1497967
174	TX	12	1486271
175	GA	5	1464394
176	SC	3	1459878
177	OH	8	1458124
178	CA	21	1456440
179	NY	13	1445874
180	MI	7	1443740
181	WI	4	1431134
182	TE	4	1428187
183	WA	4	1425649
184	NJ	6	1420583
185	PA	9	1407778
186	MD	4	1399598
187	VA	5	1398728
188	CA	22	1388623
189	CO	3	1378297
190	CT	3	1373195
191	FL	10	1372577
192	TX	13	1366972
193	MA	5	1356536
194	IL	9	1353706
195	WV	2	1351219
196	NY	14	1338466
197	CA	23	1326844
198	OK	3	1315668
199	UT	2	1295823
200	OH	9	1285309

EXHIBIT E - Continued

1991 PRIORITY ASSIGNMENTS

DEAN FORMULA - $[2(N - 1)N]/[(N - 1 + N)]$

SEQ	ST	SEAT	PRIORITY
201	MN	4	1279550
202	CA	24	1270330
203	TX	14	1265425
204	PA	10	1258719
205	IN	5	1251951
206	MI	8	1249391
207	NY	15	1245930
208	FL	11	1241230
209	LA	4	1236146
210	NC	6	1220566
211	CA	25	1218436
212	IL	10	1210372
213	NJ	7	1199193
214	GA	6	1193210
215	OR	3	1189055
216	NB	2	1188463
217	AL	4	1184927
218	TX	15	1177939
219	CA	26	1170617
220	NY	16	1165374
221	IA	3	1161427
222	MO	5	1156006
223	OH	10	1149218
224	NM	2	1141334
225	VA	6	1139704
226	PA	11	1138268
227	FL	12	1132869
228	CA	27	1126410
229	MA	6	1105326
230	WI	5	1104018

EXHIBIT E - Continued

1991 PRIORITY ASSIGNMENTS

DEAN FORMULA - $[2(N - 1)N]/[(N - 1 + N)]$

SEQ	ST	SEAT	PRIORITY
231	TX	16	1101779
232	TE	5	1101744
233	MI	9	1101315
234	WA	5	1099787
235	NY	17	1094612
236	IL	11	1094547
237	CA	28	1085422
238	MD	5	1079690
239	KY	4	1078866
240	MS	3	1077685
241	AZ	4	1072746
242	CA	29	1047314
243	FL	13	1041936
244	OH	11	1039245
245	PA	12	1038895
246	NJ	8	1037763
247	KS	3	1035667
248	TX	17	1034878
249	NY	18	1031957
250	NC	6	1030348
251	SC	4	1021915
252	IN	6	1020108
253	CA	30	1011791
254	GA	7	1007255
255	IL	12	998991
256	MN	5	987082
257	MI	10	984705
258	AR	3	984266
259	CA	31	978599
260	NY	19	976092

EXHIBIT E - Continued

1991 PRIORITY ASSIGNMENTS

DEAN FORMULA - $[2(N - 1)N]/[(N - 1 + N)]$

SEQ	ST	SEAT	PRIORITY
261	TX	18	975642
262	CO	4	964808
263	FL	14	964535
264	VA	7	962088
265	CT	4	961237
266	PA	13	955506
267	LA	5	953599
268	OH	12	948517
269	CA	32	947517
270	MO	6	941931
271	MA	7	933067
272	NY	20	925968
273	ME	2	924917
274	TX	19	922826
275	OK	4	920968
276	IL	13	918805
277	CA	33	918348
278	NJ	9	914769
279	AL	5	914087
280	NV	2	904614
281	WI	6	899570
282	FL	15	897851
283	TE	6	897718
284	WA	6	896123
285	NC	8	891647
286	CA	34	890922
287	MI	11	890475
288	PA	14	884525
289	NY	21	880744
290	MD	6	879747

EXHIBIT E - Continued

1991 PRIORITY ASSIGNMENTS

DEAN FORMULA - $[2(N - 1)N]/[(N - 1 + N)]$

SEQ	ST	SEAT	PRIORITY
291	TX	20	875437
292	OH	13	872382
293	GA	8	871663
294	CA	35	865088
295	IN	7	861131
296	IL	14	850551
297	CA	36	840709
298	FL	16	839800
299	NY	22	839733
300	HI	2	836456
301	NH	2	835436
302	TX	21	832681
303	VA	8	832576
304	OR	4	832339
305	KY	5	832268
306	AZ	5	827547
307	PA	15	823373
308	NJ	10	817911
309	CA	37	817667
310	IA	4	812999
311	MI	12	812735
312	OH	14	807576
313	MA	8	807462
314	MN	6	804289
315	NY	23	802374
316	CA	38	795855
317	MO	7	795136
318	TX	22	793909
319	IL	15	791747
320	FL	17	788807

EXHIBIT E - Continued

1991 PRIORITY ASSIGNMENTS

DEAN FORMULA - $[2(N - 1)N]/[(N - 1 + N)]$

SEQ	ST	SEAT	PRIORITY
321	SC	5	788334
322	NC	9	785970
323	LA	6	777006
324	CA	39	775176
325	PA	16	770138
326	GA	9	768355
327	NY	24	768199
328	WI	7	759377
329	ID	2	758990
330	TX	23	758588
331	TE	7	757813
332	WA	7	756467
333	CA	40	755545
334	RI	2	754488
335	MS	4	754379
336	OH	15	751744
337	WV	3	750677
338	MI	13	747499
339	IN	8	745209
340	AL	6	744811
341	CO	5	744280
342	FL	18	743656
343	MD	7	742644
344	CT	5	741526
345	IL	16	740557
346	NJ	11	739642
347	CA	41	736884
348	NY	25	736817
349	VA	9	733900
350	TX	24	726278

EXHIBIT E - Continued

1991 PRIORITY ASSIGNMENTS

DEAN FORMULA - $[2(N - 1)N]/[(N - 1) + N]$

SEQ	ST	SEAT	PRIORITY
351	KS	4	724967
352	PA	17	723374
353	UT	3	719902
354	CA	42	719122
355	MA	9	711763
356	OK	5	710461
357	NY	26	707900
358	FL	19	703398
359	OH	16	703140
360	NC	10	702750
361	CA	43	702197
362	TX	25	696609
363	IL	17	695589
364	MI	14	691970
365	AR	4	688986
366	MO	8	688099
367	GA	10	687000
368	CA	44	686050
369	PA	18	681969
370	NY	27	681167
371	MN	7	678945
372	KY	6	678144
373	NJ	12	675070
374	AZ	6	674297
375	CA	45	670630
376	TX	26	669269
377	FL	20	667278
378	OH	17	660444
379	NB	3	660257
380	WI	8	657153

EXHIBIT E - Continued

1991 PRIORITY ASSIGNMENTS

DEAN FORMULA - $[2(N - 1)N]/[(N - 1) + N]$

SEQ	ST	SEAT	PRIORITY
381	IN	9	656888
382	NY	28	656381
383	VA	10	656193
384	LA	7	655914
385	CA	46	655887
386	TE	8	655800
387	IL	18	655774
388	WA	8	654635
389	PA	19	645050
390	MI	15	644130
391	TX	27	643995
392	MD	8	642673
393	SC	6	642346
394	OR	5	642090
395	CA	47	641778
396	MA	10	636400
397	NC	11	635501
398	FL	21	634688
399	NM	3	634075
400	NY	29	633335
401	AL	7	628737
402	CA	48	628264
403	IA	5	627170
404	OH	18	622641
405	GA	11	621258
406	NJ	13	620884
407	TX	28	620562
408	IL	19	620274
409	CA	49	615308
410	PA	20	611926

EXHIBIT E—Continued

1991 PRIORITY ASSIGNMENTS

DEAN FORMULA — $[2(N - 1)N]/[(N - 1) + N]$

SEQ	ST	SEAT	PRIORITY
411	NY	30	611854
412	MO	9	606546
413	CO	6	606451
414	FL	22	605135
415	CT	6	604206
416	CA	50	602875
417	MT	2	602741
418	MI	16	602484
419	TX	29	598774
420	VA	11	593400
421	NY	31	591782
422	CA	51	590934
423	OH	19	588934
424	IL	20	588422
425	MN	8	587549
426	IN	10	587335
427	PA	21	582039
428	MS	5	581950
429	NC	12	580021
430	CA	52	579458
431	WI	9	579269
432	OK	6	578894
433	TX	30	578465
434	FL	23	578213
435	TE	9	578076
436	WA	9	577049
437	MA	11	575500
438	NJ	14	574761
439	NY	32	572986
440	KY	7	572459

EXHIBIT E—Continued

1991 PRIORITY ASSIGNMENTS

DEAN FORMULA — $[2(N - 1)N]/[(N - 1) + N]$

SEQ	ST	SEAT	PRIORITY
441	AZ	7	569212
442	CA	53	568418
443	LA	8	567618
444	GA	12	567021
445	MD	9	566504
446	MI	17	565900
447	IL	21	559683
448	TX	31	559488
449	KS	5	559260
450	OH	20	558692
451	CA	54	557792
452	NY	33	555347
453	PA	22	554938
454	FL	24	553585
455	CA	55	547555
456	AL	8	544099
457	MO	10	542324
458	SC	7	542240
459	TX	32	541718
460	VA	12	541595
461	NY	34	538762
462	CA	56	537688
463	NJ	15	535025
464	IL	22	533623
465	MI	18	533509
466	NC	13	533464
467	AR	5	531504
468	OH	21	531405
469	IN	11	531131
470	FL	25	530971

EXHIBIT E - Continued

1991 PRIORITY ASSIGNMENTS

DEAN FORMULA - $[2(N-1)N]/[(N-1)+N]$

SEQ	ST	SEAT	PRIORITY
471	PA	23	530249
472	CA	57	528170
473	WV	4	525474
474	MA	12	525258
475	TX	33	525041
476	SD	2	524999
477	OR	6	523184
478	NY	35	523139
479	GA	13	521508
480	CA	58	518983
481	WI	10	517934
482	MN	9	517913
483	TE	10	516868
484	WA	10	515949
485	ME	3	513843
486	CO	7	511939
487	IA	6	511028
488	FL	26	519132
489	CA	59	510110
490	CT	7	510044
491	IL	23	509882
492	TX	34	509361
493	NY	36	508397
494	PA	24	507664
495	OH	22	506661
496	MD	10	506521
497	MI	19	504627
498	UT	4	503931
499	NV	3	502563
500	CA	60	501535

EXHIBIT F

1991 PRIORITY ASSIGNMENTS

ADAMS FORMULA - $(N-1)$

SEQ	ST	SEAT	PRIORITY
51	CA	2	29839250
52	NY	2	18044505
53	TX	2	17059805
54	CA	3	14919625
55	FL	2	13003362
56	PA	2	11924710
57	IL	2	11466682
58	OH	2	10887325
59	CA	4	9946417
60	MI	2	9328784
61	NY	3	9022252
62	TX	3	8529902
63	NJ	2	7748634
64	CA	5	7459812
65	NC	2	6657630
66	GA	2	6508419
67	FL	3	6501681
68	VA	2	6216568
69	MA	2	6029051
70	NY	4	6014835
71	CA	6	5967850
72	PA	3	5962355
73	IL	3	5733341
74	TX	4	5686602
75	IN	2	5564228
76	OH	3	5443662
77	MO	2	5137804
78	CA	7	4973208
79	WI	2	4906745
80	TE	2	4896641

EXHIBIT F - Continued

1991 PRIORITY ASSIGNMENTS

ADAMS FORMULA - (N - 1)

SEQ	ST	SEAT	PRIORITY
81	WA	2	4887941
82	MD	2	4798622
83	MI	3	4664392
84	NY	5	4511126
85	MN	2	4387029
86	FL	4	4334454
87	TX	5	4264951
88	CA	8	4262750
89	LA	2	4238216
90	AL	2	4062608
91	PA	4	3974903
92	NJ	3	3874317
93	IL	4	3822227
94	CA	9	3729906
95	KY	2	3698969
96	AZ	2	3677985
97	OH	4	3629108
98	NY	6	3608901
99	SC	2	3503707
100	TX	6	3411961
101	NC	3	3328815
102	CA	10	3315472
103	CO	2	3307912
104	CT	2	3295669
105	GA	3	3254210
106	FL	5	3250840
107	OK	2	3157604
108	MI	4	3109595
109	VA	3	3108284
110	MA	3	3014526

EXHIBIT F - Continued

1991 PRIORITY ASSIGNMENTS

ADAMS FORMULA - (N - 1)

SEQ	ST	SEAT	PRIORITY
111	NY	7	3007418
112	CA	11	2983925
113	PA	5	2981178
114	IL	5	2866670
115	OR	2	2853733
116	TX	7	2843301
117	IA	2	2787424
118	IN	3	2782114
119	OH	5	2721831
120	CA	12	2712659
121	FL	6	2600672
122	MS	2	2586443
123	NJ	4	2582878
124	NY	8	2577786
125	MO	3	2568902
126	CA	13	2486604
127	KS	2	2485600
128	WI	3	2453372
129	TE	3	2448320
130	WA	3	2443970
131	TX	8	2437115
132	MD	3	2399311
133	PA	6	2384942
134	AR	2	2362239
135	MI	5	2332196
136	CA	14	2295327
137	IL	6	2293336
138	NY	9	2255563
139	NC	4	2219210
140	MN	3	2193514

EXHIBIT F - Continued

1991 PRIORITY ASSIGNMENTS

ADAMS FORMULA - (N - 1)

SEQ	ST	SEAT	PRIORITY
141	OH	6	2177465
142	GA	4	2169473
143	FL	7	2167227
144	TX	9	2132476
145	CA	15	2131375
146	LA	3	2119108
147	VA	4	2072189
148	AL	3	2031304
149	MA	4	2009684
150	NY	10	2004945
151	CA	16	1989283
152	PA	7	1987452
153	NJ	5	1937158
154	IL	7	1911114
155	TX	10	1895534
156	MI	6	1865757
157	CA	17	1864953
158	FL	8	1857623
159	IN	4	1854743
160	KY	3	1849484
161	AZ	3	1838992
162	OH	7	1814554
163	NY	11	1804450
164	WV	2	1801625
165	CA	18	1755250
166	SC	3	1751854
167	UT	2	1727764
168	MO	4	1712601
169	TX	11	1705980
170	PA	8	1703530

EXHIBIT F - Continued

1991 PRIORITY ASSIGNMENTS

ADAMS FORMULA - (N - 1)

SEQ	ST	SEAT	PRIORITY
171	NC	5	1664408
172	CA	19	1657736
173	CO	3	1653956
174	CT	3	1647834
175	NY	12	1640410
176	IL	8	1638097
177	WI	4	1635582
178	TE	4	1632214
179	WA	4	1629314
180	GA	5	1627105
181	FL	9	1625420
182	MD	4	1599541
183	NB	2	1584617
184	OK	3	1578802
185	CA	20	1570487
186	OH	8	1555332
187	MI	7	1554797
188	VA	5	1554142
189	TX	12	1550891
190	NJ	6	1549727
191	NM	2	1521779
192	MA	5	1507263
193	NY	13	1503709
194	CA	21	1491962
195	PA	9	1490589
196	MN	4	1462343
197	FL	10	1444818
198	IL	9	1433335
199	OR	3	1426866
200	TX	13	1421650

EXHIBIT F - Continued

1991 PRIORITY ASSIGNMENTS

ADAMS FORMULA - (N - 1)

SEQ	ST	SEAT	PRIORITY
201	CA	22	1420917
202	LA	4	1412739
203	IA	3	1393712
204	IN	5	1391057
205	NY	14	1388039
206	OH	9	1360916
207	CA	23	1356330
208	AL	4	1354203
209	MI	8	1332683
210	NC	6	1331526
211	PA	10	1324968
212	TX	14	1312293
213	GA	6	1301684
214	FL	11	1300336
215	CA	24	1297359
216	MS	3	1293222
217	NJ	7	1291439
218	NY	15	1288893
219	MO	5	1284451
220	IL	10	1274076
221	VA	6	1243314
222	CA	25	1243302
223	KS	3	1242800
224	ME	2	1233223
225	KY	4	1232990
226	WI	5	1226686
227	AZ	4	1225995
228	TE	5	1224160
229	WA	5	1221985
230	TX	15	1218558

EXHIBIT F - Continued

1991 PRIORITY ASSIGNMENTS

ADAMS FORMULA - (N - 1)

SEQ	ST	SEAT	PRIORITY
231	OH	10	1209703
232	NV	2	1206152
233	MA	6	1205810
234	NY	16	1202967
235	MD	5	1199656
236	CA	26	1193570
237	PA	11	1192471
238	FL	12	1182124
239	AR	3	1181120
240	SC	4	1167902
241	MI	9	1166098
242	CA	27	1147663
243	IL	11	1146668
244	TX	16	1137320
245	NY	17	1127782
246	HI	2	1115274
247	NH	2	1113915
248	IN	6	1112846
249	NC	7	1109605
250	NJ	8	1106948
251	CA	28	1105157
252	CO	4	1102637
253	CT	4	1098556
254	MN	5	1096757
255	OH	11	1088732
256	GA	7	1084736
257	PA	12	1084065
258	FL	13	1083614
259	TX	17	1066238
260	CA	29	1065688

EXHIBIT F – Continued

1991 PRIORITY ASSIGNMENTS

ADAMS FORMULA – (N – 1)

SEQ	ST	SEAT	PRIORITY
261	NY	18	1061441
262	LA	5	1059554
263	OK	4	1052535
264	IL	12	1042426
265	MI	10	1036532
266	VA	7	1036095
267	CA	30	1028940
268	MO	6	1027561
269	AL	5	1015652
270	ID	2	1011986
271	RI	2	1005984
272	MA	7	1004842
273	TX	18	1003518
274	NY	19	1002472
275	FL	14	1000259
276	CA	31	994642
277	PA	13	993726
278	OH	12	989757
279	WI	6	981349
280	TE	6	979328
281	WA	6	977588
282	NJ	9	968579
283	CA	32	962556
284	MD	6	959724
285	IL	13	955557
286	OR	4	951244
287	NC	8	951090
288	NY	20	949711
289	TX	19	947767
290	MI	11	932878

EXHIBIT F – Continued

1991 PRIORITY ASSIGNMENTS

ADAMS FORMULA – (N – 1)

SEQ	ST	SEAT	PRIORITY
291	CA	33	932477
292	GA	8	929774
293	IA	4	929141
294	FL	15	928812
295	IN	7	927371
296	KY	5	924742
297	AZ	5	919496
298	PA	14	917285
299	OH	13	907277
300	CA	34	904220
301	NY	21	902225
302	WV	3	900812
303	TX	20	897884
304	VA	8	888081
305	IL	14	882052
306	CA	35	877625
307	MN	6	877406
308	SC	5	875927
309	FL	16	866891
310	UT	3	863882
311	MS	4	862148
312	MA	8	861293
313	NJ	10	860959
314	NY	22	859262
315	MO	7	856301
316	TX	21	852990
317	CA	36	852550
318	PA	15	851765
319	MI	12	848071
320	LA	6	847643

EXHIBIT F - Continued

1991 PRIORITY ASSIGNMENTS

ADAMS FORMULA - (N - 1)

SEQ	ST	SEAT	PRIORITY
321	OH	14	837487
322	NC	9	832204
323	CA	37	828868
324	KS	4	828533
325	CO	5	826978
326	CT	5	823917
327	NY	23	820205
328	IL	15	819049
329	WI	7	817791
330	TE	7	816107
331	WA	7	814657
332	GA	9	813552
333	FL	17	812710
334	AL	6	812522
335	TX	22	812372
336	CA	38	806466
337	MT	2	803655
338	MD	7	799770
339	PA	16	794981
340	IN	8	794890
341	NB	3	792308
342	OK	5	789401
343	AR	4	787413
344	CA	39	785243
345	NY	24	784544
346	OH	15	777666
347	MI	13	777399
348	VA	9	777071
349	TX	23	775446
350	NJ	11	774863

EXHIBIT F - Continued

1991 PRIORITY ASSIGNMENTS

ADAMS FORMULA - (N - 1)

SEQ	ST	SEAT	PRIORITY
351	CA	40	765109
352	FL	18	764904
353	IL	16	764445
354	NM	3	760890
355	MA	9	753631
356	NY	25	751854
357	CA	41	745981
358	PA	17	745294
359	TX	24	741731
360	KY	6	739794
361	NC	10	739737
362	AZ	6	735597
363	MO	8	733972
364	MN	7	731172
365	CA	42	727787
366	OH	16	725822
367	GA	10	723158
368	FL	19	722409
369	NY	26	721780
370	MI	14	717599
371	IL	17	716668
372	OR	5	713433
373	TX	25	710825
374	CA	43	710458
375	LA	7	706369
376	NJ	12	704421
377	PA	18	701454
378	WI	8	700964
379	SC	6	700741
380	SD	2	699999

EXHIBIT F—Continued

1991 PRIORITY ASSIGNMENTS

ADAMS FORMULA—(N - 1)

SEQ	ST	SEAT	PRIORITY
381	TE	8	699520
382	WA	8	698277
383	IA	5	696856
384	IN	9	695528
385	NY	27	694019
386	CA	44	693936
387	VA	10	690730
388	MD	8	685517
389	FL	20	684387
390	TX	26	682392
391	OH	17	680458
392	CA	45	678165
393	AL	7	677101
394	IL	18	674511
395	MA	10	669895
396	DE	2	668696
397	NY	28	668315
398	MI	15	666342
399	NC	11	665763
400	CA	46	663094
401	PA	19	662484
402	CO	6	661582
403	CT	6	659134
404	TX	27	656146
405	GA	11	650842
406	FL	21	650168
407	CA	47	648679
408	MS	5	646611
409	NJ	13	645720
410	NY	29	644447

EXHIBIT F—Continued

1991 PRIORITY ASSIGNMENTS

ADAMS FORMULA—(N - 1)

SEQ	ST	SEAT	PRIORITY
411	MO	9	642226
412	ND	2	641364
413	OH	18	640431
414	IL	19	637038
415	CA	48	634878
416	TX	28	631845
417	OK	6	631521
418	PA	20	627616
419	MN	8	626718
420	NY	30	622224
421	MI	16	621919
422	VA	11	621657
423	CA	49	621651
424	KS	5	621400
425	FL	22	619208
426	IN	10	618248
427	ME	3	616612
428	KY	7	616495
429	WI	9	613343
430	AZ	7	612998
431	TE	9	612080
432	WA	9	610993
433	TX	29	609279
434	CA	50	608964
435	LA	8	605459
436	NC	12	605239
437	OH	19	604851
438	IL	20	603510
439	NV	3	603076
440	MA	11	602905

EXHIBIT F - Continued

1991 PRIORITY ASSIGNMENTS

ADAMS FORMULA - (N - 1)

SEQ	ST	SEAT	PRIORITY
441	NY	31	601484
442	WV	4	600542
443	MD	9	599828
444	CA	51	596785
445	PA	21	596236
446	NJ	14	596049
447	GA	12	591674
448	FL	23	591062
449	AR	5	590560
450	TX	30	588269
451	CA	52	585083
452	SC	7	583951
453	MI	17	583049
454	NY	32	582081
455	AL	8	580373
456	UT	4	575921
457	CA	53	573832
458	IL	21	573334
459	OH	20	573017
460	MO	10	570867
461	OR	6	570747
462	TX	31	568660
463	PA	22	567843
464	FL	24	565364
465	VA	12	565143
466	VT	2	564964
467	NY	33	563891
468	CA	54	563005
469	HI	3	557637
470	IA	6	557485

EXHIBIT F - Continued

1991 PRIORITY ASSIGNMENTS

ADAMS FORMULA - (N - 1)

SEQ	ST	SEAT	PRIORITY
471	NH	3	556958
472	IN	11	556423
473	NC	13	554802
474	NJ	15	553474
475	CA	55	552579
476	AK	2	551947
477	CO	7	551319
478	TX	32	550316
479	CT	7	549278
480	MI	18	548752
481	MN	9	548379
482	MA	12	548096
483	NY	34	546803
484	IL	22	546032
485	WI	10	545194
486	OH	21	544366
487	TE	10	544071
488	WA	10	543105
489	CA	56	542532
490	GA	13	542368
491	PA	23	542032
492	FL	25	541807
493	MD	10	533180
494	TX	33	533119
495	CA	57	532844
496	NY	35	530721
497	LA	9	529777
498	KY	8	528424
499	NB	4	528206
500	OK	7	526267

EXHIBIT G

COMPARISON OF HILL METHOD: $\text{SQRT}[n(n-1)]$ AND DEAN METHOD: $\frac{2(n-1)n}{(n-1)+n}$

1989 STATE REPS	-- 1990 HILL METHOD -- REPS CHANGE PEOPLE /REP		- 1990 DEAN METHOD - REPS CHANGE PEOPLE /REP	
WA 8	9	1 543105	8	0 610993
MT 2	1	-1 803655	2	0 401828

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COMPARISON OF HILL METHOD: $\text{SQRT}[n(n-1)]$ AND ADAMS METHOD: $n - 1$

1989 STATE REPS	-- 1990 HILL METHOD -- REPS CHANGE PEOPLE /REP		- 1990 ADAMS METHOD - REPS CHANGE PEOPLE /REP	
CA 45	52	+7 573832	50	+5 596785
FL 19	23	+4 565364	22	+3 591062
IL 22	20	-2 573334	19	-3 603510
NY 34	31	-3 582081	30	-4 601484
NC 11	12	+1 554803	11	605239
OH 21	19	-2 573017	18	-3 604851
PA 23	21	-2 567843	20	-3 596236
TX 27	30	+3 568660	29	+2 588269
AZ 5	6	+1 612998	7	+2 525426
DE 1	1	668696	2	+1 334348
KS 5	4	-1 521400	5	497120
KY 7	6	-1 616495	7	528424
LA 8	7	-1 605459	8	529777
ME 2	2	616612	3	+1 411074
MT 2	1	803655	2	401828
ND 1	1	641364	2	+1 320682
SD 1	1	699999	2	+1 350000

EXHIBIT H

- HILL METHOD -		- DEAN METHOD -		- ADAMS METHOD -	
STATE	PEOPLE /REP	STATE	PEOPLE /REP	STATE	PEOPLE /REP
MT	803655	SD	699999	NC	605239
SD	699999	DE	668696	OH	604851
DE	668696	ND	641364	IL	603510
ND	641364	KS	621400	NV	603076
KS	621400	ME	616612	MA	602905
ME	616612	KY	616495	NY	601484
KY	616495	AZ	612998	WV	600542
AZ	612998	WA	610993	MD	599828
LA	605459	LA	605459	CA	596785
NV	603076	NV	603076	PA	596236
MA	602905	MA	602905	NJ	596049
WV	600542	WV	600542	GA	591674
MD	599828	MD	599828	FL	591062
NJ	596049	NJ	596049	AR	590560
GA	591674	GA	591674	TX	588269
AR	590560	AR	590560	SC	583951
SC	583951	SC	583951	MI	583049
MI	583049	MI	583049	AL	580373
NY	582081	NY	582081	UT	575921
AL	580373	AL	580373	MO	570867
UT	575921	UT	575921	OR	570867
CA	573832	CA	573832	VA	565143
IL	573334	IL	573334	VT	564964
OH	573017	OH	573017	HI	557637
MO	570867	MO	570867	IA	557485
OR	570747	OR	570747	NH	556958
TX	568660	TX	568660	IN	556423
PA	567843	PA	567843	AK	551947
FL	565364	FL	565364	CO	551319
VA	565143	VA	565143	CT	549278
VT	564964	VT	564964	MN	548379

EXHIBIT H - Continued

- HILL METHOD -		- DEAN METHOD -		- ADAMS METHOD -	
STATE	PEOPLE /REP	STATE	PEOPLE /REP	STATE	PEOPLE /REP
HI	557637	HI	557637	WI	545194
IA	557485	IA	557485	TE	544071
NH	556958	NH	556958	WA	543105
IN	556423	IN	556423	LA	529777
NC	554803	NC	554802	KY	528424
AK	551947	AK	551947	NB	528206
CO	551319	CO	551319	OK	526267
CT	549278	CT	549278	AZ	525426
MN	548379	MN	548379	MS	517289
WI	545194	WI	545194	NM	507260
TE	544071	TE	544071	ID	505993
WA	543105	NB	528206	RI	502992
NB	528206	OK	526267	KS	497120
OK	526267	MS	517289	WY	455975
MS	517289	NM	507260	ME	411074
NM	507260	ID	505993	MT	401828
ID	505993	RI	502992	SD	350000
RI	502992	WY	455975	DE	334348
WY	455975	MT	401828	ND	320682

EXHIBIT I

VARIANCE AND STANDARD DEVIATION

Using Ideal District Size as Mean:

-- HILL METHOD --	-- DEAN METHOD --	-- ADAMS METHOD --
$v^2 = 2,813,456,170.14$	$v^2 = 2,329,604,538.67$	$v^2 = 5,851,343,298.73$
$v = 53,042.02$	$v = 48,265.98$	$v = 76,494.07$

v^2 = variability
 v = square root of variability

Ideal District Size = 572,466 (U.S. Population \div 435) or (249,022,783 \div 435)

Using Actual District Size Mean (\bar{X}):

-- HILL METHOD --	-- DEAN METHOD --	-- ADAMS METHOD --
$s^2 = 2,795,841,683.56$	$s^2 = 2,323,103,847.90$	$s^2 = 4,868,505,384.22$
$s = 52,875.72$	$s = 48,198.59$	$s = 69,774.68$
$\bar{X} = 576,620.78$	$\bar{X} = 569,941.98$	$\bar{X} = 541,430.84$

s^2 = variance
 s = standard deviation

RANGE

-- HILL METHOD --	-- DEAN METHOD --	-- ADAMS METHOD --
347,680	298,171	284,557

BASIC FORMULA: The basic formula used is:

$$\text{PRIORITY} = \frac{\text{STATE POPULATION}}{\text{DENOMINATOR}}$$

WHERE: PRIORITY = value used to determine the state to receive the next representative.

STATE POPULATION = population of each state as determined by the Census Bureau for 1990

DENOMINATOR = the denominator dictated by each of three formulae: the Hill, Adams and Dean methods

HILL METHOD (Exh. D): The formula used by the Hill method to calculate the denominator is:

$$\text{DENOMINATOR} = \text{SQRT}[(\text{NEXTREP} * \text{CURREPS})]$$

WHERE: * = a symbol to denote multiplication

SQRT[argument] = function used to determine the square root of the argument

NEXTREP = the number of representatives the state in question would have if this representative were apportioned to it

CURREPS = the number of representatives already apportioned to the state in question

DEAN METHOD (Exh. E): The formula used by the Dean method to calculate the denominator is:

$$\text{DENOMINATOR} = \frac{2 * \text{CURREPS} * \text{NEXTREP}}{\text{CURREPS} + \text{NEXTREP}}$$

WHERE: NEXTREP = the number of representatives the state in question would have if this representative were apportioned to it

CURREPS = the number of representatives already apportioned to the state in question

ADAMS METHOD (Exh. F): The formula used by the Adams method to calculate the denominator is:

DENOMINATOR = CURREPS

WHERE: CURREPS = the number of representatives already apportioned to the state in question

Once the data for each formula was generated, a comparison between the Hill formula and each of the other two formulae (Adams and Dean) was performed (Exh. G). The differences shown on the report were calculated by the following equation:

1989	1990 METHODS OF HILL, DEAN, AND ADAMS	1990 METHODS OF HILL, DEAN, AND ADAMS
STATE REPS	REPS CHANGE	PEOPLE /REP

TS
Y
X
P
Q

WHERE: $d = X - Y$

$$Q = \frac{\text{state population}}{X}$$

The population mean, variance and standard deviation were calculated as follows:

Initially, I used the ideal district size to determine a measure of variability and its square root for each of the three methods. The formulae used were:

$$v^2 = \sum_{i=1}^n (x_i - p)^2 / (n - 1)$$

$$\frac{1}{\sqrt{v^2}} = v$$

WHERE: v' = variability

v' = variability
s = square root

 $n = 50$ (number of states)

X_i = each state's number of constituents per representative

$P = \text{ideal district size} = (\text{U.S. Population}/435) \text{ or } (249,022,783/435) = 572,466$

Finally, I calculated the population mean for each of the three methods and used these values to calculate the estimated variance and standard deviation using the following formulae:

$$s^2 = \sum_{i=1}^n (X_i - \bar{X})^2 / (n - 1)$$

$$\bar{X} = \sum_{i=1}^n X_i / n$$

$$s = \sqrt{s^2}$$

WHERE: s^2 = variance

s = standard deviation

n = 50 (number of states)

X_i = each state's number of constituents per representative

The range of the data is calculated by taking the district size of the state with the minimum number of constituents per representative from the district size of the state with the maximum number of constituents per representative.

RANGE = max. X_i - min. X_i

LAWRENCE R. ERNST DECLARATION EXHIBITS

EXHIBIT B

THEORETICAL 1990 APPORTIONMENTS UNDER
DIFFERENT METHODS

	EXACT Q	ADAM	HARM	EQPR	WEBS	JEFFS	HAM
1 Alabama	7.097	7	7	7	7	7	7
2 Alaska	0.964	1	1	1	1	1	1
3 Arizona	6.425	7	6	6	6	6	6
4 Arkansas	4.126	4	4	4	4	4	4
5 California	52.124	50	52	52	52	54	52
6 Colorado	5.778	6	6	6	6	6	6
7 Connecticut	5.757	6	6	6	6	6	6
8 Delaware	1.168	2	1	1	1	1	1
9 Florida	22.715	22	23	23	23	23	23
10 Georgia	11.369	11	11	11	11	11	11
11 Hawaii	1.948	2	2	2	2	2	2
12 Idaho	1.768	2	2	2	2	1	2
13 Illinois	20.030	19	20	20	20	21	20
14 Indiana	9.720	10	10	10	10	10	10
15 Iowa	4.869	5	5	5	5	5	5
16 Kansas	4.342	5	4	4	4	4	4
17 Kentucky	6.461	7	6	6	6	6	6
18 Louisiana	7.403	8	7	7	7	7	7
19 Maine	2.154	3	2	2	2	2	2
20 Maryland	8.382	8	8	8	8	8	8
21 Massachusetts	10.532	10	10	10	11	11	11
22 Michigan	16.296	16	16	16	16	17	16
23 Minnesota	7.663	8	8	8	8	8	8
24 Mississippi	4.518	5	5	5	5	4	4
25 Missouri	8.975	9	9	9	9	9	9
26 Montana	1.404	2	2	1	1	1	1
27 Nebraska	2.768	3	3	3	3	2	3
28 Nevada	2.107	2	2	2	2	2	2
29 New Hampshire	1.946	2	2	2	2	2	2
30 New Jersey	13.536	13	13	13	13	14	14
31 New Mexico	2.658	3	3	3	3	2	3
32 New York	31.521	30	31	31	31	33	31
33 North Carolina	11.630	11	12	12	12	12	12
34 North Dakota	1.120	2	1	1	1	1	1
35 Ohio	19.018	18	19	19	19	19	19

EXHIBIT B—Continued

THEORETICAL 1990 APPORTIONMENTS UNDER
DIFFERENT METHODS

	EXACT Q	ADAM	HARM	EQPR	WEBS	JEFFS	HAM
36 Oklahoma	5.516	6	6	6	5	5	5
37 Oregon	4.985	5	5	5	5	5	5
38 Pennsylvania	20.830	20	21	21	21	21	21
39 Rhode Island	1.757	2	2	2	2	1	2
40 South Carolina	6.124	6	6	6	6	6	6
41 South Dakota	1.223	2	1	1	1	1	1
42 Tennessee	8.554	9	9	9	9	8	9
43 Texas	29.801	29	30	30	30	31	31
44 Utah	3.018	3	3	3	3	3	3
45 Vermont	0.987	1	1	1	1	1	1
46 Virginia	10.859	11	11	11	11	11	11
47 Washington	8.538	9	8	9	9	8	9
48 West Virginia	3.147	3	3	3	3	3	3
49 Wisconsin	8.571	9	9	9	9	8	9
50 Wyoming	0.797	1	1	1	1	1	1

EXACT Q = EXACT QUOTA (The integer and fraction of seats due a state given its population)

ADAM = ADAMS (SMALLEST DIVISORS) METHOD—Never used

HARM = DEAN (HARMONIC MEAN) METHOD—Never used

EQPR = EQUAL PROPORTIONS (HILL) METHOD—Used 1940-1990

WEBS = WEBSTER (MAJOR FRACTIONS) METHOD—Used 1840, 1880-1910, 1930

JEFF = JEFFERSON (GREATEST DIVISORS) METHOD—Used 1790-1830

HAM = HAMILTON/VINTON METHOD—Used 1850-1870

EXHIBIT C

POSSIBLE APPORTIONMENTS FOR MONTANA
UNDER VARIOUS METHODS

	EXACT Q	ADAM	HARM	EQPR	WEBS	JEFFS	HAM
1960	1.644	2	2	2	2	1	2
1970	1.496	2	2	2	1	1	1
1980	1.515	2	2	2	2	1	1
1990	1.404	2	2	1	1	1	1

EXACT Q = EXACT QUOTA (The integer and fraction of seats due a state given its population)

ADAM = ADAMS (SMALLEST DIVISORS) METHOD — Never used

HARM = DEAN (HARMONIC MEAN) METHOD — Never used

EQPR = EQUAL PROPORTIONS (HILL) METHOD — Used 1940-1990

WEBS = WEBSTER (MAJOR FRACTIONS) METHOD — Used 1840, 1880-1910, 1930

JEFF = JEFFERSON (GREATEST DIVISORS) METHOD — Used 1790-1830

HAM = HAMILTON/VINTON METHOD — Used 1850-1870

JAN 15 1992

OFFICE OF THE CLERK

In the Supreme Court of the United States

OCTOBER TERM, 1991

UNITED STATES DEPARTMENT OF COMMERCE, ET AL.,
APPELLANTS

v.

STATE OF MONTANA, ET AL.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA

BRIEF FOR APPELLANTS
UNITED STATES DEPARTMENT OF COMMERCE,
ET AL.

KENNETH W. STARR
Solicitor General

STUART M. GERSON
Assistant Attorney General

JOHN G. ROBERTS, JR.
Deputy Solicitor General

EDWIN S. KNEEDLER
Assistant to the Solicitor General

MICHAEL JAY SINGER

MARK B. STERN

MICHAEL S. RAAB

Attorneys

Department of Justice

Washington, D.C. 20530

(202) 514-2217

QUESTIONS PRESENTED

Article I, Section 2, Clause 3 of the United States Constitution provides that Representatives in the United States House of Representatives "shall be apportioned among the several States which may be included within this Union, according to their respective Numbers." Section 2 of the Fourteenth Amendment reiterates that requirement. The questions presented by this case are:

1. Whether Congress's choice among alternative means of apportioning Representatives that are rationally tied to the respective populations of the States is subject to review by a court.

2. Whether 2 U.S.C. 2a, which provides for apportionment of Representatives on the basis of the mathematical formula known as the "method of equal proportions," satisfies the requirement that Representatives be apportioned among the States "according to their respective Numbers."

II

PARTIES TO THE PROCEEDINGS

The appellants herein, who were defendants in the district court, are the United States Department of Commerce; the Acting Secretary of Commerce (substituted as a party pursuant to Rule 35.3 of the Rules of this Court); the Bureau of the Census; and Barbara Everitt Bryant, Director of the Bureau of the Census. Donnal K. Anderson, Clerk of the United States House of Representatives, also was a defendant in the district court and has filed a separate notice of appeal to this Court.

The appellees in this Court, who were the plaintiffs below, are the State of Montana; Stan Stephens, Governor of Montana; Marc Racicot, Attorney General of Montana; Mike Cooney, Secretary of State of Montana; Max Baucus and Conrad Burns, United States Senators from Montana; and Pat Williams and Ron Marlenee, United States Representatives from Montana.

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BRIEF FOR APPELLANTS
UNITED STATES DEPARTMENT OF COMMERCE,
ET AL.

OPINIONS BELOW

The opinion of the three-judge district court (J.S. App. 1a-34a) is reported at 775 F. Supp. 1358. The order of the single judge (J.S. App. 35a-46a) is not reported.

JURISDICTION

The judgment of the three-judge district court (J.S. App. 47a-48a) was entered on October 18, 1991. The notice of direct appeal (J.S. App. 49a-51a) was filed on October 24, 1991, and the appeal was docketed on November 26, 1991. The Court noted probable jurisdiction on December 16, 1991. J.A. 34. The jurisdiction of this Court is invoked under 28 U.S.C. 1253. See J.S. 25-28.

CONSTITUTIONAL AND STATUTORY PROVISIONS INVOLVED

Article I, Section 2, Clauses 1 through 3, and Section 8, Clause 18 of the United States Constitution; Sections

2 and 5 of the Fourteenth Amendment to the Constitution; 2 U.S.C. 2a; and 13 U.S.C. 141(a) and (b), are reproduced at App., *infra*, 1a-5a.

STATEMENT

The district court in this case held unconstitutional the Act of Congress that prescribes the method for apportioning Representatives among the States. 2 U.S.C. 2a(a). That statute was enacted in 1941 to resolve a 150-year-old controversy about the most appropriate formula for apportioning Representatives, and it has governed apportionment of the House of Representatives ever since. The Act mandates that Representatives be apportioned by what is known as the "method of equal proportions," which utilizes a formula based on geometric means—a familiar approach in statistical analysis. That method, and the four alternatives considered at the time (including the "Adams method" and "Dean method" advocated by appellees), are described at pages 11-13, *infra*. Compared to each of these alternatives, the method of equal proportions minimizes the relative difference in a pairwise comparison between any two States with respect to both (1) the number of persons represented by a Representative (*i.e.*, the average population of congressional districts), and (2) each person's "share" of a Representative (*i.e.*, the number of a State's Representatives divided by its population).

A. Constitutional, Statutory, And Historical Background

1. Article I, Section 2 of the Constitution provides that "Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers"; "but each State shall have at Least one Representative," and the "Number of Representatives shall not exceed one for every thirty Thousand" persons. Art. I, § 2, Cl. 3. The "actual Enumeration" of persons in the States must be made every ten years, "in such Manner as they [the Congress] shall by Law direct." *Ibid.* Section 2 of the Fourteenth Amendment reiterates that "Representatives shall

be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State."¹ The Constitution does not expressly specify that it is Congress that shall make the apportionment, but Congress has provided by law for the apportionment since 1792. See *Prigg v. Pennsylvania*, 41 U.S. (16 Pet.) 539, 619 (1842); Art. I, § 8, Cl. 18 (Necessary and Proper Clause); Amend. XIV, § 5 (Congress has power to enforce Fourteenth Amendment); pages 5-14, *infra*. Similarly, because the Constitution does not prescribe the number of Representatives (aside from setting a minimum of one Representative for every State and a maximum of one Representative for every 30,000 persons), that responsibility likewise has fallen to Congress. The total number was increased steadily from the 65 initially provided for in the Constitution itself (Art. I, § 2, Cl. 3) to the current total of 435, which was adopted in 1911. See note 11, *infra*.

Pursuant to the Census Clause in Article I, Section 2 of the Constitution, Congress enacted the current Census Act, which directs the Secretary of Commerce to conduct a census, as of April 1 of 1980 and every tenth year thereafter, "in such form and content as he may determine." 13 U.S.C. 141(a). The tabulations required for apportionment "shall be completed within 9 months after the census date and reported by the Secretary to the President of the United States." 13 U.S.C. 141(b). Under the current apportionment law, the President, in turn, must

¹ Article I, Section 2, Clause 3 provides that the number of persons "shall be determined by adding to the whole Number of free Persons, including those bound to Service for a Term of Years, and excluding Indians not taxed, three fifths of all other persons." This provision was amended by the first sentence of Section 2 of the Fourteenth Amendment, which omitted the three-fifths rule for "all other persons," *Baldrige v. Shapiro*, 455 U.S. 345, 348 n.1 (1982), but retained the exclusion of "Indians not taxed." The second sentence of Section 2 provides for reduction of representation for a State if it denies or abridges the right of male citizens over 21 years of age to vote. See *Richardson v. Ramirez*, 418 U.S. 24, 42-55 (1974).

transmit to Congress, during the first week of its next Session, "a statement showing the whole number of persons in each State," as ascertained by the census. 2 U.S.C. 2a(a). The President's statement must also show "the number of Representatives to which each State would be entitled under an apportionment of the then existing number of Representatives by the method known as the method of equal proportions, no State to receive less than one Member." *Ibid.* The apportionment law further provides that "[e]ach State shall be entitled * * * to the number of Representatives shown in the [President's] statement required by [2 U.S.C. 2a(a)]," and it directs the Clerk of the House of Representatives, within 15 days after receipt of the President's statement, to "send to the executive of each State a certificate of the number of Representatives to which such State is entitled under this section." 2 U.S.C. 2a(b).

2. Congress adopted the "method of equal proportions" as part of the current apportionment law in 1941. That decision resolved a political controversy, as old as the Constitution itself, regarding the appropriate means of implementing the general constitutional mandate that Representatives shall be apportioned among the States according to their respective populations. The problem arises from the fact that an apportionment of any given number of Representatives would almost invariably result in a whole number of Representatives for each State, plus a fractional remainder. For example, using the total of 435 Representatives established by current law and the population totals from the 1990 census, the exact quotas for the States range from a high of 52.124 Representatives for California to a low of 0.797 Representatives for Wyoming.² The Constitution, however, renders any such precise

² Exh. B to Decl. of Lawrence R. Ernst, Assistant Chief, Statistical Research Division, Bureau of the Census, submitted in support of appellants' motion for summary judgment (2 J.A. 76-77). The exact quota (*i.e.*, the unrounded number of Representatives for each State) is calculated by dividing the total population of all the States by 435—which will yield the nationwide average of

apportionment impossible, by virtue of its explicit requirement that each State have at least one Representative, and the implicit assumption that each State must be allotted a whole number of Representatives. J.S. App. 9a, 15a n.4; *id.* at 23a, 24a-25a (O'Scannlain, J., dissenting). Congress therefore must devise some way of addressing the phenomenon of fractional remainders when it apportions Representatives.

a. In the decades following adoption of the Constitution, Congress enacted a new apportionment act after each decennial census. In those acts, Congress allocated Representatives by selecting a uniform (albeit arbitrary) number of persons to be represented by each Representative (the "ratio"), and then dividing that figure into each State's population.³ Up through the 1832 apportionment, fractional remainders were disregarded. L. Schmeckebier, *Congressional Apportionment* 109, 112-113 (1941) [*Congressional Apportionment*]; cf. *Loughborough v. Blake*, 18 U.S. (5 Wheat.) 317, 320 (1820). This method of disregarding fractions is known as the "Jefferson method" (because it was endorsed by Thomas Jefferson during the controversy surrounding the first apportionment in 1792 (see pages 35-37, *infra*)), or the "method of greatest divisors." See generally *Congressional Apportionment* at 73, 107-114; M. Balinski & H.P. Young, *Fair Representation* 12 (table 3.3), 18, 21, 23, 25 (1982) [*Fair Representation*]; Chafee, *Congressional Reapportionment*, 42 Harv. L. Rev. 1015, 1021, 1022 (1929); page 12, *infra*.⁴

persons per Representative (nationwide average district size)—and then dividing that result into the population of each State.

³ Act of Apr. 14, 1792, 1 Stat. 253 (one Representative per 33,000 persons); Act of Jan. 14, 1802, 2 Stat. 128 (33,000); Act of Dec. 21, 1811, 2 Stat. 669 (35,000); Act of Mar. 7, 1822, 3 Stat. 651 (40,000); Act of May 22, 1832, 4 Stat. 516 (47,700). These Acts all specified the number of Representatives each State was to receive under the apportionment, without actually specifying the method of apportionment.

⁴ In 1832, John Quincy Adams, by then a Member of the House, proposed another method (the "Adams method" or the "method of smallest divisors"), which appellees advocated below. See J.S. App.

In 1842, Congress again apportioned Representatives based on a specified ratio of the number of persons (70,680) per Representative; but for the first time it also took account of some fractional remainders by allocating "one additional representative for each State having a fraction greater than one moiety [one half] of the said ratio." Act of June 25, 1842, § 1, 5 Stat. 491. This method is known as the "Webster method" (because it was endorsed by Senator Daniel Webster),⁵ or the "method of major fractions." *Congressional Apportionment* at 112-113; *Fair Representation* at 28-35; Chafee, 42 Harv. L. Rev. at 1022-1023.

b. These early apportionment acts (like later ones) generated extended debates about the most appropriate way of apportioning Representatives. The debates were often characterized by disputes between large and small States, between North and South, between political factions—and, of course, between States that stood to gain and those that stood to lose under alternative methods of apportionment, in light of the most recent decennial census. See generally *Fair Representation* at 11, 13, 15-16, 20, 21-22, 25, 35.⁶

15a n.5. Under the Adams method, the population of every State would be divided by a prescribed ratio of persons per Representative, just as under the Jefferson method; but every State then would receive an additional Representative for its fractional remainder (no matter how small). This method, which favored New England States in 1832, was the mirror image of the Jefferson method, which disregarded all fractional remainders (no matter how large) and favored southern States in that year. *Fair Representation* at 27-29.

⁵ Webster advocated a variant of this method in 1832. See 8 Cong. Deb. 487-490 (1832); Report of Senate Select Comm., S. Doc. No. 119, 22d Cong., 1st Sess. (1832), reprinted in 8 Cong. Deb. App. 92-111 (1832). Although the proposal received support in the Senate at that time (but not overwhelming support, see, e.g., 8 Cong. Deb. 640 (1832) (Sen. Clay); *id.* at 936 (Sen. Forsyth); *id.* at 641 (Sen. Poindexter)), the House was firmly opposed to it. See *id.* at 934-936.

⁶ See, e.g., 3 Annals of Cong. 200-202 (1791); *id.* at 244 (Rep. White); *ibid.* (Rep. Williamson); *ibid.* (Rep. Boudinot); *id.* at

In response to this experience, Congress, in the Census Act of 1850, adopted a much different approach. Act of May 23, 1850, §§ 24-26, 9 Stat. 428, 432-433. First, the 1850 Act fixed the size of the House at 233 Members. § 24, 9 Stat. 432. Second, it provided that those Representatives would be apportioned after the next and all succeeding censuses according to a new method, commonly known as "Vinton's method,"⁷ and directed the Secretary of the Interior to ascertain and certify to the House of Representatives the apportionment of Representatives under the statutorily prescribed method. §§ 25, 26, 9 Stat. 432-433. Under the Vinton method, the aggregate population of all the States was divided by 233 to determine the ratio of persons per Representative; that ratio was then divided into the population of each State; the resulting quotient (disregarding fractions in the first instance) was the number of Representatives apportioned to that State; and the remaining Representatives necessary to bring the nationwide total to 233 were distributed among the States having the highest fractional remainders. § 23, 9 Stat. 432-433. The 1852 apportionment was carried out pursuant to the 1850 Act, based on the certification by the Secretary of the Interior. H.R. Exec. Doc. No. 129, 32d Cong., 1st Sess. (1852); see *Congressional Apportionment* at 115.

Although it was hoped that the 1850 Act would furnish a permanent and self-executing resolution of the recurring

245 (Rep. Goodhue); *ibid.* (Rep. Hillhouse); *id.* at 246 (Rep. Giles); *ibid.* (Rep. Williamson); *id.* at 248-250 (Rep. Sedgwick); *id.* at 254-259 (Rep. Ames); *id.* at 274 (Rep. Laurence); *id.* at 335 (Rep. Livermore); 11 Annals of Cong. 338 (1801) (Reps. Giles, Jones); *id.* at 339-340 (Rep. Bacon); 8 Cong. Deb. 934 (1832) (Sen. Dickerson); 11 Cong. Globe, 27th Cong., 2d Sess. 627 (1842) (Rep. McClellan).

⁷ The method is named after Representative Vinton of Ohio. 21 Cong. Globe, 31st Cong., 1st Sess. 863 (1850). The apportionment bill initially passed by Congress in 1792 was based on essentially the same method and was endorsed by Alexander Hamilton. *Fair Representation* at 15-17; see pages 35-37, *infra*. For this reason, it is sometimes known as the "Hamilton/Vinton" method.

and contentious apportionment debate, Congress soon departed from that approach. In 1862, after the Secretary certified the apportionment pursuant to the 1850 Act (H.R. Exec. Doc. No. 2, 37th Cong., 1st Sess. (1861)), Congress enacted a special law that assigned an additional Representative to each of eight States. Act of Mar. 4, 1862, § 1, 12 Stat. 353. After each succeeding decennial census, Congress enacted a new apportionment law that increased the size of the House (in order to prevent any State from losing a Representative), and returned to the prior practice of prescribing the apportionment in the law itself. Although the text of the laws from 1862 through 1901 did not identify the method on which the respective apportionments were based, the Vinton method was employed in those years. *Congressional Apportionment* at 113-119; Chafee, 42 Harv. L. Rev. at 1025-1027 & nn.28-34; Celler, *Congressional Apportionment—Past, Present, and Future*, 17 Law & Contemp. Probs. 268, 270-271 (1953).⁸ Nonetheless, Congress soon became disenchanted with that method, especially after it gave rise in 1881 to what has become known as the “Alabama paradox”—a mathematical quirk that can result in a State’s actually receiving *fewer* Representatives for a given population if the nationwide total number of Representatives is *increased*.⁹ To avoid that result, Congress set the increase in the size of the House at a particular level at which,

⁸ In 1872, Congress increased the size of the House to 283 (Act of Feb. 2, 1872, § 1, 17 Stat. 28), and then, four months later, assigned an additional Representative to each of nine States (Act of May 30, 1872, 17 Stat. 192). The additional seats were assigned to the States having the highest fractional remainders. See H.R. Rep. No. 28, 42d Cong., 2d Sess. (1872). For the succeeding decades, see: Act of Feb. 25, 1882, § 1, 22 Stat. 5 (325 Representatives); Act of Feb. 7, 1891, § 1, 26 Stat. 735 (356 Representatives); Act of Jan. 16, 1901, § 1, 31 Stat. 733 (386 Representatives).

⁹ *Fair Representation* at 38-40; *Congressional Apportionment* at 5-7; Chafee, 42 Harv. L. Rev. at 1025-1027. See, e.g., 13 Cong. Rec. 967 (1882) (Rep. Prescott); 22 Cong. Rec. 1899-1900 (1891) (Sen. Hale); S. Doc. No. 304, 76th Cong., 3d Sess. 28-29 (1940).

even under the Vinton method, the paradox would not arise.¹⁰

In 1911, Congress once again increased the size of the House to avoid a loss to any State, fixing the number of Representatives at the current total of 435. Act of Aug. 8, 1911, § 1, 37 Stat. 13.¹¹ Although, as usual, the statutory text did not identify what method was used, the legislative history shows that this time, it was the major fractions (Webster) method. S. Rep. No. 94, 62d Cong., 1st Sess. 2-3 (1911); H.R. Rep. No. 12, 62d Cong., 1st Sess. 2-3 (1911); see *Congressional Apportionment* at 119-120; *Fair Representation* at 47; Chafee, 42 Harv. L. Rev. at 1035.

c. Following the 1920 census, Congress failed for the first time to pass *any* apportionment law, because of concerns about the accuracy of the census, dramatic population shifts from rural to urban areas, and dissatisfaction with the major fractions (Webster) method. During that period, considerable interest developed in the equal proportions (Hill) method, which had first been proposed in 1911 by Joseph Hill, a statistician with the Census

¹⁰ *Fair Representation* at 38-42; Chafee, 42 Harv. L. Rev. at 1027 n.34; but see *id.* at 1026 n.31. In addition, *Fair Representation* states (at 37, 40, 42) that from 1862 to 1901, the total number of Representatives often was set at a level at which the Vinton method would yield the same apportionment that would have resulted if the Webster method had been used. 34 Cong. Rec. 743 (1901), adopting bill explained in H.R. Rep. No. 2130, 56th Cong., 2d Sess. 115-146 (1900) (minority views); 22 Cong. Rec. 531 (1890) (Rep. Dunnell); *id.* at 1858 (Sen. Davis); but cf. 13 Cong. Rec. 1180-1181 (1882).

¹¹ The 1911 Act fixed the total number of Representatives at 433, but provided that additional Representatives would be allocated to Arizona and New Mexico if (as happened the next year) they were admitted to the Union. § 2, 37 Stat. 14. The number of Representatives was temporarily increased to 437 following the admission of Alaska and Hawaii in 1959, but it reverted to 435 following the 1960 census. See Alaska Statehood Act, § 9, 72 Stat. 345; Hawaii Statehood Act, § 8, 73 Stat. 8.

Bureau. See S. Rep. No. 94, *supra*, at 43-57; H.R. Rep. No. 12, *supra*, at 43-57. The equal proportions method was unanimously endorsed in 1921 by the advisory committee to the Director of the Census Bureau in a study conducted at the request of the Chairman of the Senate Committee on the Census, and in a paper by Edward Huntington, a professor of mathematics from Harvard who also worked with the Census Bureau.¹² These experts contended, *inter alia*, that the major fractions method was biased in favor of large States. Numerous bills were introduced and hearings held at the beginning and toward the end of the 1920s,¹³ but Congress could not agree on any solution. In an effort to break the impasse before the 1930 census and to avoid future deadlocks, the Speaker of the House requested the National Academy of Sciences (NAS) to review various methods of apportionment. The NAS appointed a committee of four prominent mathematicians for that purpose. See generally *Fair Representation* at 47-55; *Congressional Apportionment* at 120-122; Chafee, 42 Harv. L. Rev. at 1015-1016 & n.2, 1032; Celler, 17 Law & Contemp. Probs. at 271; Ernst Decl. ¶¶ 8, 10 (2 J.A. 22).

The NAS committee submitted its report on February 5, 1929. G.A. Bliss, *et al.*, *Report to the President of the*

¹² These documents are reproduced in *Hearings on H.R. 15471 Before the House Comm. on the Census*, 69th Cong., 2d Sess. 53, 94 (1927) [1927 House Hearings]. See also 67 Cong. Rec. 7078-7080 (1926) (advisory committee report).

¹³ See H.R. Rep. No. 1173, 66th Cong., 3d Sess. (1921); H.R. Rep. No. 312, 67th Cong., 1st Sess. (1921); H.R. Rep. No. 1137, 70th Cong., 1st Sess. (1928); H.R. Rep. No. 2010, 70th Cong., 2d Sess. (1929); S. Rep. No. 1446, 70th Cong., 2d Sess. (1929); S. Rep. No. 2, 71st Cong., 1st Sess. (1929); *Apportionment of Representatives: Hearings on H.R. 14498, 15021, 15158 and 15217 Before the House Comm. on the Census*, 66th Cong., 3d Sess. (1920-1921); *Apportionment of Representatives: Hearing Before a Subcomm. of the House Comm. on the Census*, 67th Cong., 1st Sess. (1921); 1927 House Hearings, *supra*; *Hearing on H.R. 130 Before the House Comm. on the Census*, 70th Cong., 1st Sess. (1928).

National Academy of Sciences (1929) (1 J.A. 15-19) (reproduced at 70 Cong. Rec. 4966-4967 (1929), and H.R. Rep. No. 1314, 91st Cong., 2d Sess. 19-21 (1970)). The committee considered five methods of apportionment: (1) equal proportions (Hill), (2) harmonic means (also known as the Dean method), (3) major fractions (Webster), (4) smallest divisors (Adams) (see note 4, *supra*), and (5) greatest divisors (Jefferson).¹⁴ Although these methods may be described in various ways as a practical matter, they may also be expressed mathematically in a form that permits comparison: Each State is first allotted one Representative, as required by the Constitution. A series of priority values is then calculated for each State, from which its entitlement to a second and subsequent Representatives can be determined. The priority values for all States are then arranged in sequence from highest to lowest, to indicate which State should receive the 51st Representative, which State the 52d, and so on through the 435th Representative. Under all of the methods, the formula for establishing each State's priorities has as its numerator the population of the State. The methods differ only with respect to the denominator.

For example, under the method of equal proportions, the priority values for each State are calculated by dividing its population (SP) by the *geometric* mean of the number of Representatives the State has already received in the sequential allocation ("n") and the next integer ("n+1"). The resulting formula is:

$$\frac{SP}{\sqrt{n(n+1)}}$$

Under the major fractions (Webster) method, a State's priority values are calculated by dividing its population by the *arithmetic* mean between successive Representatives in the allocation, as depicted by the formula:

¹⁴ The NAS committee did not consider the Vinton method, because it had been discredited by its propensity to create the "Alabama paradox." J.A. 17; *Fair Representation* at 55.

$$\frac{SP}{n+1/2}$$

Under the harmonic means (Dean) method, urged by appellees below, the State's population is divided by the *harmonic* mean between successive Representatives in the allocation, as depicted by the formula:

$$\frac{2n(n+1)}{n+(n+1)}$$

$$\frac{SP}{n}$$

The smallest divisors (Adams) method, also urged by appellees below, was designed in theory to round up all fractional remainders, and is depicted by the formula:

$$\frac{SP}{n+1}$$

The greatest divisors (Jefferson) method, by contrast, was designed in theory to round down all fractional remainders, and is depicted by the formula:

$$\frac{SP}{n+1}$$

See generally *Congressional Apportionment* at 8-9, 14, 22-23, 33-34, 41, 50; Chafee, 42 Harv. L. Rev. at 1029 nn.3-9; 2 J.A. 9.

In evaluating these five methods, the NAS committee utilized four measures of equity (1 J.A. 18-19):

1) *Persons per Representative* (average district size)—the State's population divided by its number of Representatives.

2) *Each person's share of a Representative*—the number of a State's Representatives divided by its population.

3) *Representation surplus*—the difference between (i) the number of Representatives of an over-represented State, and (ii) the number of Representatives of an under-represented State multiplied by the population of the over-represented State divided by the population of the under-represented State.

4) *Representation deficiency*—the difference between (i) the number of Representatives of an under-

represented State, and (ii) the number of Representatives of an over-represented State multiplied by the population of the under-represented State divided by the population of the over-represented State.

See also Ernst Decl. ¶ 11 (1 J.A. 23).

The NAS committee concluded that four of the apportionment methods it considered each best achieved one of these measures of equity, in absolute terms, in a pairwise comparison between any two States.¹⁵ Thus, the major fractions (Webster) method minimizes the absolute difference between each person's share of a Representative; the harmonic means (Dean) method minimizes the absolute difference between the number of persons per Representative; the smallest divisors (Adams) method minimizes the absolute representation surplus; and the greatest divisors (Jefferson) method minimizes the absolute representation deficiency. By the same token, the NAS committee concluded that the equal proportions method minimizes the *relative* (percentage) variation of both the number of persons per Representative and each person's share of a Representative. See note 37, *infra*. For this reason, and because "it occupies mathematically a neutral position with respect to emphasis on larger and smaller states," the NAS committee recommended adoption of the method of equal proportions. 1 J.A. 18-19; see also Ernst Decl. ¶¶ 13-14 (1 J.A. 24-25); pages 41-42, 46-47, *infra*.

Following receipt of the NAS Report, Congress enacted permanent apportionment legislation as part of the Census Act of 1929, although it did not then definitively choose a particular apportionment formula. Act of June 18, 1929, § 22, 46 Stat. 26-27. Instead, the 1929 Act

¹⁵ Pairwise comparisons are "a commonly used approach that consists of examining the effects of moving a seat between any pair of States. An apportionment method is optimal under the pairwise criterion with respect to a particular measure of inequity if a transfer of representatives between any pair of states increases the amount of inequity between these states." Ernst Decl. ¶ 12 (1 J.A. 23-24). See also NAS Report (1 J.A. 18).

directed the President, following every decennial census, to report to Congress the number of Representatives to which each State would be entitled under the equal proportions method, the major fractions method, and the method used in the preceding apportionment; if Congress did not enact an apportionment law before the end of the Session, each State would be entitled to the number of Representatives to which it was entitled under the method used in the prior apportionment. *Ibid.* When Congress did not enact an apportionment law following the 1930 census, Representatives were apportioned according to the method of major fractions (the method used in the prior apportionment, in 1911), although the method of equal proportions would have resulted in the same apportionment. *Congressional Apportionment* at 124; *Fair Representation* at 57. Finally, in 1941, after studying the matter once again, Congress determined that equal proportions was the most appropriate method of apportionment (see pages 40-42, *infra*); it accordingly amended the 1929 Act to provide that Representatives are to be automatically apportioned under the method of equal proportions, in the manner now prescribed by 2 U.S.C. 2a. Act of Nov. 15, 1941, § 2(a), 55 Stat. 762. The method of equal proportions has been the basis for all reapportionments ever since. *Fair Representation* at 58.

d. Although Congress has not changed the apportionment formula since 1941, it has reviewed the issue on several occasions. Most notably, in 1948, the NAS was asked to reexamine the various apportionment methods. The requested study was undertaken by "[t]hree of the most distinguished mathematicians of the day." *Fair Representation* at 78; see M. Morse, *et al.*, *Report to the President of the National Academy of Sciences* (1948) (reproduced at App., *infra*, 6a-12a). The 1948 report not only confirmed the 1929 NAS Report's conclusions that the equal proportions method "stands in a middle position" with respect to small and large States (App., *infra*, 11a, 8a) and minimizes the *relative* difference between persons per Representative (average district size) and Representatives per person (share in a Representative)

in pairwise comparisons between States; it also found that equal proportions is superior to each of the four alternative methods with respect to the *absolute* difference in one or the other of those measures. *Id.* at 9a. Accordingly, the 1948 report concluded that the equal proportions method has a "decisive" advantage over the others. *Id.* at 11a; see also *id.* at 9a. See pages 42, 46-47, *infra*.¹⁰

B. The Proceedings In This Case

1. Following the 1990 census, the President, on January 3, 1991, transmitted to Congress the statement required by 2 U.S.C. 2a(a). 27 Weekly Comp. Pres. Doc. 6 (1991). Based on the 1990 census, Montana's percentage of the national population translated into 1.404 Representatives out of the fixed total of 435. Under the method of equal proportions, Montana was entitled to one Representative, a loss of one. 2 J.A. 78.

On May 22, 1991, appellees (the State of Montana and its Governor, Attorney General, Secretary of State, Senators, and Representatives) commenced this suit for declaratory and injunctive relief against the Department and Secretary of Commerce, the Bureau of the Census and its Director, and the Clerk of the House of Representatives. Appellees alleged that use of the equal proportions method to apportion Representatives contravenes Article I, Section 2 of the Constitution, and they suggested that adoption of the harmonic means (Dean) method or the smallest divisors (Adams) method—neither of which had ever been used before—would be preferable. Under the Dean method, Montana would receive two Representatives rather than one, while Wash-

¹⁰ In 1970, the responsible House Committee reported that the equal proportions method best implements the Constitution, noting that it was adopted in 1941 "after a century and a half of experimentation, studies, and constitutional debates." H.R. Rep. No. 1314, 91st Cong., 2d Sess. 5-6 (1970). In 1981, the House considered a bill that would have reinstituted the Vinton method. *Census Activities and the Decennial Census: Hearing on H.R. 1990 Before the Subcomm. on Census and Population of the House Comm. on Post Office and Civil Service*, 97th Cong., 1st Sess. (1981).

ington would receive eight rather than nine; no other State's allocation would be affected. The Adams method, however, would alter the allocations to 18 States. Ernst Decl., Exh. B (2 J.A. 76-77).

2. On October 18, 1991, a divided three-judge district court declared 2 U.S.C. 2a "unconstitutional and void" and permanently enjoined the defendants "and their agents * * * from effecting reapportionment of the United States House of Representatives under [2 U.S.C. 2a]." J.S. App. 47a-48a; *id.* at 1a-34a.¹⁷

a. The court recognized that "[n]o state has heretofore turned to the judicial branch to challenge the method employed by Congress to apportion representatives among the several states." J.S. App. 9a. It also recognized that strict application of the "one person, one vote" principle is a "mathematical impossibility" in this setting, "because Congress must adhere to existing state boundaries and each state must have at least one representative." *Ibid.* But the court concluded that the one person/one vote principle nevertheless should govern to the extent practicable, and that the reasoning of *Wesberry v. Sanders*, 376 U.S. 1 (1964), and *Karcher v. Daggett*, 462 U.S. 725 (1983)—which concerned a state legislature's drawing of congressional districts within a State—should also apply to Congress's apportionment of Representatives among the States. J.S. App. 9a-12a. In the lower court's view, if the party challenging such an apportionment "establishes 'that the population differences were not the result of a good-faith effort to achieve equality,' the burden then shifts to the defendant to prove 'that each significant variance between districts was nec-

¹⁷ As an initial matter, the three-judge court held that it was properly convened under 28 U.S.C. 2284, and it rejected appellants' contentions that the case presents a nonjusticiable political question and that appellees lack standing. J.S. App. 4a-5a. Judge O'Scannlain agreed with the majority on these threshold issues. *Id.* at 20a. Judge Lovell previously had denied appellants' motion to dismiss on standing and political question grounds. *Id.* at 37a-46a.

essary to achieve some legitimate goal.'" *Id.* at 13a (quoting *Karcher*, 462 U.S. at 730-731).

Applying those principles here, the court agreed with appellees that Congress must adopt the apportionment method that minimizes the "absolute difference between numbers of persons per representative" and absolute deviation from the "ideal district size" (the nationwide average district size), rather than the "relative difference between the number of persons per representative and the relative difference between each person's share of a representative" (as the equal proportions method does). J.S. App. 13a-14a. Finding that the Dean method minimizes the absolute differences under those measures, the court concluded that appellees had carried their initial burden of showing that a method other than equal proportions would "more closely meet" what it regarded as "the constitutional mandate of absolute population equality among districts." *Id.* at 15a.¹⁸

The court next held that appellants had not carried what it held to be their resulting burden under *Karcher* of affirmatively justifying the equal proportions method in these circumstances, J.S. App. 15a-19a, offering the view that it would be "difficult, if not impossible, to do so." *Id.* at 17a. Thus, the court discounted Congress's judgment that relative difference is a better measure of equity than absolute difference, on the ground that it was made "without benefit" of *Wesberry*. *Id.* at 16a.¹⁹

¹⁸ The court rejected appellees' reliance on the Adams method, because, as the dissent explained, it results in a "quota violation" for four States (J.S. App. 15a n.5)—*i.e.*, "it assigns a number of representatives to a state that is neither of the two closest whole numbers to that state's exact, unrounded share of representation." *Id.* at 28a (O'Scannlain, J., dissenting). For example, although California's exact share of Representatives under the 1990 census is 52.124, the Adams method would allocate only 50 Representatives to California. *Ibid.*

¹⁹ The court also discounted Congress's past reapportionment efforts on the ground that they "have been political in nature, involving compromises among the states." J.S. App. 16a-17a.

And it rejected appellants' contention that the equal proportions method is justified by mathematically demonstrable considerations of equity and fairness, observing that apportionment is not governed by "subjective mathematical or equitable concerns," and that "[t]he Constitution mandates apportionment 'among the several States . . . according to their respective Numbers,' not 'according to their respective Numbers and whatever other considerations Congress or its mathematicians may deem appropriate at any given time.'" *Id.* at 17a.

Finally, the court held that Congress had not made a "good faith effort" to achieve equal representation for equal numbers of people, "because the reapportionment process was automatic, and Congress, in its role as law and policy maker, had no part in the process." J.S. App. 18a. In the court's view, it would not be an "undue burden" for Congress, "once every decade, [to] apply various accepted statistical methods to the census results and determine which method best meets the Constitutional mandate for population equality among the districts." *Id.* at 18a-19a.

b. Circuit Judge O'Scannlain dissented. J.S. App. 20a-34a. Judge O'Scannlain pointed out that "the Framers were aware that the scheme they were creating would lead to the fractional interest problem," yet they "did not include in the Constitution a specific mathematical formula to address" it. *Id.* at 25a. In his view, appellees had failed to carry their threshold burden under *Karcher* of showing that the population differences under the formula Congress chose are avoidable, and that they result from a lack of good faith effort by Congress to achieve population equity in the context of the constitutional provisions requiring each State to have at least one Representative and barring congressional districts that straddle state lines. *Id.* at 26a. Because of these restrictions, Judge O'Scannlain reasoned, the standard of "precise numerical equality" announced in *Wesberry* and *Karcher* is "impossible to apply here." *Id.* at 26a-27a. "Indeed," he continued, "application of any of the apportionment formulae before [the] court results in congressional dis-

trict populations varying by hundreds of thousands of people between states." *Id.* at 27a. Thus, unlike intra-state redistricting, which involves the straightforward question of whether districts have the same population, apportionment among the States entails "the more complex task of evaluating the relative merits of plans which, by necessity, all fall far short of population equality." *Ibid.*

Judge O'Scannlain also disagreed with the majority's conclusion that the Dean method is statistically superior to the equal proportions method. He first noted that under the equal proportions method, "Montana's [single] congressional district is 48.0% larger than Washington's average district," but that under the Dean method (which would require the transfer of a House seat from Washington to Montana), the average size of Washington's districts would become 52.1% larger than the average size of Montana's. J.S. App. 29a. Next, Judge O'Scannlain pointed out that the equal proportions method performs better even under the majority's preferred test of "absolute difference from the ideal district," because in both Montana and Washington, the aggregate deviation by all districts from the ideal district size is smaller under the equal proportions method than under the Dean method. *Ibid.* Finally, Judge O'Scannlain noted that although the Dean method results in a narrower absolute difference between the single smallest district and single largest district in the Nation, "[w]hen all 435 districts are considered, the [equal proportions] method has the *least absolute population variance* from the ideal district size." *Id.* at 30a (citing Ernst Decl. ¶ 23 (1 J.A. 29-30)).

SUMMARY OF ARGUMENT

I. The district court has held unconstitutional the Act of Congress that provides for apportionment of Representatives among the States by the method of equal proportions. That holding is without foundation in the Constitution.

A. Article I, Section 2, Clause 3 and the Fourteenth Amendment provide that Representatives "shall be apportioned among the several States * * * according to their respective Numbers." Congress's selection from among methods that are rationally tied to the population of the States presents a political question that is not reviewable by the courts. See *Baker v. Carr*, 369 U.S. 186, 217 (1962). In the first place, the constitutional text prescribes no set formula for Congress to follow beyond the general declaration—which unquestionably is satisfied by the method of equal proportions—that apportionment shall be according to the "respective Numbers" (populations) of the States. Congress therefore has plenary authority under the Necessary and Proper Clause (Art. I, § 8, Cl. 18) to select what it regards as the most appropriate method. Moreover, there are no judicially discoverable and manageable standards for selecting a method of apportioning Representatives among the States; selection of a standard of equity against which to measure various alternatives requires an initial policy determination of a kind clearly committed to the political Branches; separation of powers principles require respect for a coordinate Branch's decisions concerning its own composition; and judicial review would disrupt apportionment at both the national and state levels.

B. The background and implementation of the Constitution's apportionment provisions refute the district court's holding that Congress's discretion is narrowly circumscribed and that the harmonic means method therefore must be preferred to the equal proportions method. The few relevant comments at the Constitutional Convention suggest an expectation on the part of some delegates that fractional remainders in allocating Representatives

to the States would be disregarded, and thus obviously do not support the district court's holding that Congress must take such remainders into account in a particular way. Moreover, the divergent views in Congress and the Executive Branch at the time of the first apportionment in 1792 strongly support a construction of Article I that permits various approaches to the problem. That construction is confirmed by Congress's subsequent practice of periodically adopting different approaches. The Fourteenth Amendment's incorporation of the relevant text of Article I therefore constitutes a ratification of the flexibility and discretion that Congress had exercised.

Congress's adoption of the method of equal proportions in 1941, after extensive study and on the advice of numerous experts, was fully consistent with its practice of revisiting the issue in light of accumulated experience. Congress reasonably concluded that equal proportions is preferable to other methods (including harmonic means) because it minimizes relative differences between States with respect to both average congressional district size and each person's share of a Representative. Subsequent studies and the record in this case confirm the soundness of Congress's judgment and demonstrate that equal proportions is superior in several other aspects as well.

C. Wesberry v. Sanders, 376 U.S. 1 (1964), does not undermine the constitutionality of 2 U.S.C. 2a. That decision, which involved a state legislature's drawing of congressional districts within a State, did not address the antecedent question, presented here, of how many Representatives Congress should apportion to the State in the first place. Moreover, the decision in *Wesberry* was based on Clause 1 of Article I, Section 2, which had been construed to confer a personal right to vote on the "People of the several States"; this case, by contrast, arises under Clause 3, which does not refer to the "People," but instead provides for apportionment of Representatives to the States themselves, based on their aggregate populations. But even if the principles of *Wesberry* were applicable, they are satisfied, in this special context, by the method of equal proportions.

II. Contrary to the district court's suggestion, nothing in Article I requires Congress itself to revisit the issue and pass a new apportionment act after each census. Congress may instead assign to the Executive the task of ascertaining the apportionment under standards it has established.

ARGUMENT

THERE IS NO BASIS IN THE CONSTITUTION FOR A COURT TO INVALIDATE THE APPORTIONMENT MADE BY 2 U.S.C. 2a

The district court has held unconstitutional the Act of Congress that prescribes the formula for apportioning Representatives among the States following each decennial census. 2 U.S.C. 2a. Congress enacted that provision in 1941 after a century and a half of experimentation, studies, and debates regarding the most appropriate means of giving content to the general declaration in Article I, Section 2, Clause 3 of the Constitution—reiterated in Section 2 of the Fourteenth Amendment—that Representatives “shall be apportioned among the several States * * * according to their respective Numbers.” The formula Congress chose (the method of equal proportions)—was repeatedly endorsed by experts from a mathematical perspective, and it has produced a fair reapportionment of the House of Representatives following each decennial census since 1941.

The district court has now cast aside Congress's considered judgment, finding another method of apportionment preferable under the single test the court believed should control implementation of Article I, Section 2, Clause 3 and Section 2 of the Fourteenth Amendment. That ruling is unprecedented. As the district court itself recognized, “[n]o state has heretofore turned to the judicial branch to challenge the method employed by Congress to apportion representatives among the several states.” J.S. App. 9a. The judgment below casts a shadow over the redrawing of congressional districts by the State Legislatures that is now well underway in reliance on the apportionment made by 2 U.S.C. 2a, and

creates uncertainty regarding the number of electors to which each State will be entitled in the 1992 election of the President and Vice President. U.S. Const. Art. II, § 1, Cl. 2; 3 U.S.C. 3.

The district court's ruling is as wrong as it is unprecedented. The method of equal proportions unquestionably apportions Representatives among the States “according to their respective Numbers.” That is all Article I, Section 2, Clause 3 and Section 2 of the Fourteenth Amendment require. Nothing in that general constitutional standard suggests that a court may second-guess Congress's choice among methods of apportionment that are rationally tied to the population of the States, much less that the Constitution mandates use of the particular mathematical formula that appellees and the district court would prefer.

I. THE CONSTITUTION GRANTS CONGRESS BROAD DISCRETION IN APPORTIONING REPRESENTATIVES AMONG THE STATES, AND CORRESPONDINGLY PERMITS ONLY THE NARROWEST SCOPE OF JUDICIAL REVIEW

The text and structure of the Constitution, as well as the history of the organization of the Government under its provisions, refutes the district court's holding that Congress's power to select a means of apportioning Representatives among the States is narrowly circumscribed, and that 2 U.S.C. 2a is invalid for that reason. The Constitution confers plenary authority and discretion on Congress for this purpose. Congress has not assigned any role to the courts in apportioning Representatives among the States. Compare *Luther v. Borden*, 48 U.S. (7 How.) 1, 42-43 (1849). It instead has prescribed the method of apportionment, and assigned to the President, assisted by the Secretary of Commerce, the responsibility for ascertaining the number of Representatives to which each State is entitled under that method. This arrangement retains responsibility for apportionment of Representatives (and Presidential electors) within the politi-

cal Branches. It follows that the Constitution permits no more than the narrowest scope of judicial review—in order to determine (in a case otherwise properly before a court) whether the apportionment is contrary to an explicit constitutional limitation on that authority. In this case, then, the court's role could extend no further than determining whether the apportionment is rationally tied to the "respective Numbers" of the States.

A. Congress's Selection From Among Apportionment Methods That Are Rationally Tied To The Population Of The States Presents A Political Question That Is Not Reviewable By The Courts

In declaring invalid the apportionment of Representatives made in the manner Congress itself prescribed, the district court has arrogated to itself the power to decide a political question in the most classic sense. As this Court explained in *Baker v. Carr*, 369 U.S. 186 (1962), the political question doctrine is "essentially a function of the separation of powers," *id.* at 217, deriving from "the relationship between the judiciary and the coordinate Branches of the Federal Government," *id.* at 210. In *Baker v. Carr* itself, because the separation of powers among the Branches of the Federal Government was not involved, the Court held that a State's drawing of districts for election to the state legislature did not present a non-justiciable political question. For the same reason, the Court similarly held in *Wesberry v. Sanders*, 376 U.S. at 5-7, that a federal court could review a state legislature's drawing of congressional districts within a State. This case, obviously, is different. Appellees seek review of Congress's apportionment of Representatives among the States. It therefore goes to the heart of the separation of powers and the "relationship between the judiciary and the coordinate Branches of the Federal Government." 369 U.S. at 210.

In *Baker v. Carr*, the Court identified six "formulations" that signal the presence of a question that the Constitution commits to the political Branches (369 at 217):

[1] a textually demonstrable constitutional commitment of the issue to a coordinate political department; or [2] a lack of judicially discoverable and manageable standards for resolving it; or [3] the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion; or [4] the impossibility of a court's undertaking independent resolution without expressing lack of the respect due coordinate branches of government; or [5] an unusual need for unquestioning adherence to a political decision already made; or [6] the potentiality of embarrassment from multifarious pronouncements by various departments on one question.

All of these factors are present here, and establish that the district court erred in going beyond a very narrow inquiry into whether Congress's chosen system rationally effectuated the Constitution's requirement that Representatives be apportioned according to the "respective Numbers" of the States.

1. a. Article I, Section 2, Clause 3 provides that "Representatives shall be apportioned among the several States * * * according to their respective Numbers." Although the Constitution does not expressly provide that the responsibility for apportionment resides in Congress, the Framers clearly intended that result,²⁰ and Congress's power to apportion Representatives "has always been

²⁰ See, e.g., *The Federalist*, No. 58, quoted at note 21, *infra*; 1 M. Farrand, *The Records of the Federal Convention of 1787* at 570-571 (1966 ed.) (Edmund Randolph); *id.* at 559, 571, 583-584 (Gouverneur Morris); *id.* at 578 (George Mason); *id.* at 584-585 (James Madison); *id.* at 602 (Roger Sherman). In fact, the resolutions of the Convention that were referred to the Committee of Detail expressly provided that "the Legislature of the United States shall be authorised from Time to Time to apportion the Number of Representatives" and "to regulate the Number of representatives * * * upon the Principle of the Number of their Inhabitants." 2 Farrand at 130; see also *id.* at 139 ("the census being taken and returned, the legislature shall apportion the representation"); *id.* at 178 ("the Legislature shall * * * regulate the number of representatives by the number of inhabitants"); *id.* at 164 (same).

acted upon, as irresistibly flowing from the duty positively enjoined by the Constitution." *Prigg v. Pennsylvania*, 41 U.S. (16 Pet.) at 619.

Because the constitutional text furnishes no set formula for Congress to follow, Congress may exercise the full measure of power vested in it by the Necessary and Proper Clause for "carrying into Execution" all powers vested by the Constitution in the Government of the United States. Art. I, § 8, Cl. 18; see *M'Culloch v. Maryland*, 17 U.S. (4 Wheat.) 316, 420-421 (1819). Thus, the authority to apportion Representatives is plenary, *Buckley v. Valeo*, 424 U.S. 1, 90-91, 132 (1976), and Congress may "select[] the policy which in its judgment best effectuates the constitutional aim." *Graham v. John Deere Co.*, 383 U.S. 1, 6 (1966). This authority under Article I is augmented by Congress's power under Section 5 of the Fourteenth Amendment to enforce the provisions of that Amendment, which include the parallel apportionment provision.

The breadth of Congress's discretion in this regard is underscored by a number of closely associated provisions of the Constitution. First, apportionment—and the number of Representatives a State will receive under *any* apportionment method—is integrally related to the total number of Representatives in the House. The Constitution contains no restrictions on Congress's determination of a suitable size for the House of Representatives (aside from setting a minimum of one Representative for every State and a maximum of one Representative for every 30,000 persons), and the history of the apportionment statutes shows that the number of Representatives has been reached through political compromise, typically in light of its impact on reapportionment. See pages 5-14, *supra*.²¹ The fact that a question so basic to the structure

²¹ See also *The Federalist* No. 58, at 394 (J. Madison) (J. Cooke ed. 1961):

The large States * * * will have nothing to do but to make reapportionments and augmentations mutually conditions of each other; and the senators from all the most growing States

of the Government as the size of the House of Representatives (and the Electoral College) is left to the discretion of Congress strongly reinforces the conclusion that Congress likewise has essentially unfettered discretion to select what it regards as the most appropriate method for apportioning whatever number of Representatives it chooses, so long as the apportionment is rationally tied to the population of the States.

This conclusion is further underscored by the fact that Article I, Section 2, Clause 3—providing that the decennial census shall be made "in such Manner as they [the Congress] shall by Law direct"—commits the compilation of the data on which the apportionment is based to Congress's discretion. Cf. *Baldrige v. Shapiro*, 455 U.S. at 347-348 ("Under Art. I, § 2, cl. 3 * * *, responsibility for conducting the decennial census rests with Congress.")²² Finally, the Constitution provides that each House is the judge of the election of its Members (Art. I, § 5, Cl. 1), which presents a political question that no court may review.²³

will be bound to contend for the latter, by the interest which their States will feel in the former.

See generally *id.* at 391-397; *id.*, No. 55 (J. Madison), at 373 ("no political problem is less susceptible of a precise solution, than that which relates to the number most convenient for a representative legislature").

²² See *Tucker v. Department of Commerce*, 135 F.R.D. 175 (N.D. Ill. 1991) (whether to adjust census for undercount presents non-justiciable political question), appeal pending, No. 91-2051 (7th Cir.); but see *Carey v. Klutznick*, 637 F.2d 834 (2d Cir. 1980) (adjustment claim justiciable), stay granted, 449 U.S. 1068 (1980), followed on subsequent appeal, 653 F.2d 732, 736-738 (2d Cir. 1981) (but expressing concerns about manageability of suit because of impact on other States); *City of New York v. United States Dep't of Commerce*, 713 F. Supp. 48, 53-54 (E.D.N.Y. 1989) (adjustment claim reviewable under arbitrary and capricious standard of Administrative Procedure Act, 5 U.S.C. 706(2)(A)).

²³ *Rondebush v. Hartke*, 405 U.S. 15, 18-19 (1972); *Barry v. United States ex rel. Cunningham*, 279 U.S. 597, 613 (1929); *Reed*

In light of the Constitution's commitment of these subjects relating to the composition of the House of Representatives to the political Branches, a judicial decree striking down Congress's apportionment of Representatives constitutes an extraordinary intrusion into the political process. We do not suggest that *all* matters concerning the apportionment of Representatives among the States are necessarily nonjusticiable. We assume that if an Act of Congress apportioning Representatives was plainly contrary to an explicit textual limitation—*e.g.*, if no Representatives were assigned to, say, Montana; if the total number of Representatives exceeded one for every 30,000 persons; or if the apportionment bore no relation to the States' populations, and therefore could not plausibly be regarded as being "according to their respective Numbers"—a court would not be barred from so ruling, in a case that was otherwise properly before it.²⁴ But separation of powers principles—on which the political question doctrine rests—bar a court from setting aside Congress's selection of a particular method of apportionment that is not demonstrably contrary to such an explicit textual limitation on its discretion. Compare *Coleman v. Miller*, 307 U.S. 433, 447-450, 453-456 (1939); *United States v. Sprague*, 282 U.S. 716, 732 (1931); *Goldwater v. Carter*, 444 U.S. 996, 1003 (1979) (Rehnquist, J., concurring).

Here, the method of equal proportions mandated by 2 U.S.C. 2a is not demonstrably contrary to the express terms of Article I, Section 2. To the contrary, it unquestionably produces an apportionment of Representatives among the several States "according to their respective Numbers." As we have explained at page 11, *supra*,

v. County Commissioners, 277 U.S. 376, 388 (1928); *Morgan v. United States*, 801 F.2d 445, 446-450 (D.C. Cir. 1986) (Scalia, J.), cert. denied, 480 U.S. 911 (1987); *McIntyre v. Fallahay*, 766 F.2d 1078, 1081 (7th Cir. 1985).

²⁴ Compare *Powell v. McCormack*, 395 U.S. 486 (1969) (deciding that the qualifications of Representatives expressly set forth in Article I, Section 2, Clause 2, are exclusive). See *Morgan v. United States*, 801 F.2d at 448; *McIntyre v. Fallahay*, 766 F.2d at 1081 n.1.

each State's priorities under the equal proportions method are based on a formula in which the numerator is the State's population (and the denominator is the geometric mean between the number of Representatives the State has already received in the allocation and the next highest number). Furthermore, as Judge O'Scannlain pointed out in his dissent, in every apportionment since the method of equal proportions was adopted in 1941, each State has been assigned one of the two whole numbers of Representatives closest to that State's exact, unrounded share. J.S. App. 29a. In fact, the equal proportions method would have yielded that result in *every* apportionment since 1792. Ernst Decl. ¶ 22 (1 J.A. 29).

This year, the equal proportions method allocated to both Montana and Washington the closest whole number of Representatives: Montana's exact share is 1.404, and it received one Representative, while Washington's exact share is 8.538, and it received nine Representatives. Ernst Decl., Exh. B (2 J.A. 76-77). Although the equal proportions method does not always round a State's fractional remainder up or down to the closest whole number in this manner (*ibid.*), there is no textual basis for the district court's belief that Article I, Section 2 *requires* the *opposite* result in this case—*i.e.*, that Montana rather than Washington must receive an additional Representative, even though Washington has a higher fractional remainder.

2. Because the equal proportions method is fully consistent with the only textual requirement regarding the apportionment of Representatives among the States (that it be "according to their respective Numbers"), the judgment below should be reversed on this ground alone. But other factors identified in *Baker v. Carr* reinforce the textual commitment of the apportionment issue to the political Branches. For example, the alternative methods studied by the NAS committees and other experts also apportion Representatives according to a formula in which the population of the State is the numerator. See page 12, *supra*. Accordingly, we may assume for

present purposes that those alternative methods also satisfy the constitutional standard that Representatives be apportioned among the States "according to their respective Numbers." But as Congress itself obviously concluded over the decades, nothing in Article I or the Fourteenth Amendment suggests that Congress is *required* to adopt any particular method (especially the never-used Dean or Adams method suggested by appellees), or to reject the equal proportions method upon which it ultimately settled. There is, in other words, a "lack of judicially discoverable and manageable standards" on the question. 369 U.S. at 217; see also *Coleman v. Miller*, 307 U.S. at 453-454.

As between any two States, the equal proportions method minimizes the relative (percentage) difference between the number of persons per Representative and the number of Representatives per person. The district court found the Dean method preferable because it minimizes the absolute difference in the number of Representatives per person. The other methods discussed above would be superior under still other measures of equity. See page 13, *supra*. The Constitution, however, does not single out any one of those measures of equity as controlling; that assessment is left to Congress, which is in the best position to undertake the necessary legislative fact-finding, weigh the competing equities of the States, and make essential "choices about the nature of representation." *Burns v. Richardson*, 384 U.S. 73, 92 (1966). Thus, judicial review of Congress's selection from among apportionment methods that are rationally tied to the population of the States is barred because of "the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion." 369 U.S. at 217; see also *Japan Whaling Ass'n v. American Cetacean Soc'y*, 478 U.S. 221, 230 (1986); *United States v. Mandel*, 914 F.2d 1215, 1222 (9th Cir. 1990).

3. Other factors set forth in *Baker v. Carr* illuminate the "appropriateness under our system of government of attributing finality to the action of the political depart-

ments" in this setting. *Coleman v. Miller*, 307 U.S. at 454. First, because "legislative reapportionment is primarily a matter for legislative consideration and determination" even where the separation of powers between coordinate Branches of the Federal Government is not implicated, *Reynolds v. Sims*, 377 U.S. 533, 586 (1964), a federal court cannot "undertak[e] independent resolution" of the apportionment of Representatives by Congress itself "without expressing lack of the respect due [a] coordinate branch[] of government" on a matter as central to its political character as its own composition. 369 U.S. at 217.

Second, under the largely self-executing apportionment mechanism Congress has prescribed in 2 U.S.C. 2a, the President must send a formal statement to the House by the end of the census year containing the number of Representatives to which each State is entitled, and the Clerk must promptly certify the entitlement to the States, so that they may complete their own reapportionment responsibilities expeditiously. Judicial review in this context would seriously disrupt, confuse and delay apportionment within the States. There accordingly is "an unusual need for unquestioning adherence to a political decision already made." 369 U.S. at 217.²⁵

Finally, litigation such as this would inevitably create a serious "potentiality of embarrassment from multifarious pronouncements by various departments on one question." 369 U.S. at 217. The total of 435 Representatives established by current law constitutes a pool in which all States have an interest. *Carey v. Klutznick*,

²⁵ Compare *Morgan v. United States*, 801 F.2d at 450 (need for "quick, decisive resolution of election controversies"); see also *Nixon v. United States*, 938 F.2d 239, 245-246 (D.C. Cir. 1991) (procedures for trial of impeachment present nonjusticiable political question), petition for cert. pending, No. 91-740; cf. *Morris v. Gressette*, 432 U.S. 491, 500-505 (1977) (implied preclusion of judicial review under APA of Attorney General's refusal to interpose objection to change in voting law under Section 5 of Voting Rights Act, 42 U.S.C. 1973c, because of potential to delay state and local implementation).

653 F.2d at 736-737. As a result, a judicial determination that one State is entitled to an additional Representative means that a Representative must be taken away from another State. It is for this reason that the State of Washington (which would lose a Representative to Montana under the Dean method suggested by appellees and the district court) has chosen to file an amicus brief in this Court. But because Washington is not a party to the case, the federal district court in Montana could not realistically enforce an order purporting to mandate the transfer of a Representative from Washington to Montana.²⁶ More broadly, the district court could not properly develop its own plan for apportionment of Representatives among the States, because that would usurp a function that concededly is assigned to Congress under the Constitution. See *Saunders v. Wilkins*, 152 F.2d 235, 238 (4th Cir. 1945), cert. denied, 328 U.S. 870 (1946); compare *Gilligan v. Morgan*, 413 U.S. 1, 8-12 (1973); *id.* at 14 (Blackmun, J., concurring). Nor could the district court order Congress to reapportion Representatives among the States in a manner acceptable to the court; such a decree would be barred by the immunities of Congress and its Members (see Art. I, § 6, Cl. 1 (Speech or Debate Clause)) and would require the court to "control the legislature," relief that "savours too much of the exercise of political power to be within the proper province of the judicial department." *Cherokee Nation v. Georgia*, 30 U.S. (5 Pet.) 1, 20 (1831). No doubt it was for reasons such as these that although the district court declared 2 U.S.C. 2a unconstitutional, it declined to order an actual reapportionment in this case.²⁷

²⁶ The only apparent enforcement mechanism would be for the House to refuse to seat the ninth Representative from Washington—a matter that the courts may neither direct nor control. See *Luther v. Borden*, 48 U.S. (7 How.) at 42.

²⁷ In addition to declaring 2 U.S.C. 2a unconstitutional, the judgment below permanently enjoins the Secretary of Commerce, Director of the Bureau of the Census, and Clerk of the House of Representatives from "effecting reapportionment of the United

Furthermore, another challenge to 2 U.S.C. 2a has been brought before a different three-judge district court by the Commonwealth of Massachusetts, which advocates use of the Webster method. That method would result in a transfer of one Representative from Oklahoma to (not surprisingly) Massachusetts, while leaving the allocation to all other States (including Montana and Washington) unaffected. *Massachusetts v. Mosbacher*, Civ. No. 91-11234WD (D. Mass.) (argued Dec. 7, 1991). Regardless of what the district court decides in that case, its decision will conflict with that of the district court here—and thereby create irreconcilable demands upon a fixed number of Representatives. This judicially driven Balkanization process underscores the wisdom of leaving the apportionment of Representatives where the Constitution places it: in Congress itself—a forum in which *all* States are present in the manner contemplated by the Framers, and in which the States, through their Representatives,

States House of Representatives under the provisions of that said statute." J.S. App. 48a. However, appellants have already completed all of the actions required of them by 2 U.S.C. 2a for the current reapportionment, according to the method of equal proportions. The States are now free to conduct elections for the number of Representatives they have been allocated under that method. The injunction against the Secretary, Director, and Clerk therefore has no impact for this apportionment.

Appellees concede that "the language of the final judgment may not literally provide coercive relief" with respect to this year's apportionment, and they contend that "the only way to give effect to the plain language of the court's findings is to void the certificates of entitlement issued in January 1991." Mot. to Aff. 16 n.8. However, under 2 U.S.C. 2a, the Clerk performs only the ministerial task of notifying the States of the number of Representatives to which they are entitled under the President's statement. A judicial decree purporting to void the certificates the Clerk sent to the States would not alter the apportionment. Rather, under 2 U.S.C. 2a(b), it is the statement of the President that determines the number of Representatives to which "[e]ach State shall be entitled"; yet appellees understandably made no effort to join the President as a defendant or to seek relief against him. See J.S. 24-25 n.19.

may arrive at what they regard as a proper resolution of this quintessentially political issue.

B. The Background Of The Constitution's Apportionment Provisions And the History Of Their Implementation Confirm Congress's Discretion And The Validity Of The Equal Proportions Method

The district court's holding that Congress's discretion in apportioning Representatives is narrowly circumscribed—and that the harmonic means (Dean) method must be preferred to the equal proportions method as a matter of constitutional compulsion—is refuted by the background of the apportionment provisions in Article I and the Fourteenth Amendment and by 200 years of practical experience in their implementation.

1. The delegates to the Federal Convention of 1787 generally focused on larger issues concerning composition of the Legislative Branch—especially the Great Compromise between the small and large States. Although the Framers chose not to leave apportionment of Representatives entirely to Congress's discretion, and instead required periodic apportionment on the basis of population (1 Farrand at 571, 581, 595-596, 584-585, 579, 578), the records of the Convention contain little specifically on the problem of fractional remainders. The few statements on point suggest an expectation on the part of at least several delegates that fractions would be disregarded.²⁸ Subsequent practice has not, of course, conformed to that expectation (at least since 1842), and appellees under-

²⁸ See 1 Farrand at 559 (Nathaniel Gorham) ("Fractions could not be observed."); *id.* at 602 (Oliver Ellsworth) ("fractions can not be regarded in apportioning the < no. of > representatives"); 2 *id.* at 358 (Oliver Ellsworth) ("A State might have one Representative only, that had inhabitants enough for 1½ or more, if fractions could be applied"). There are, however, indications that fractions were not entirely disregarded in the initial apportionment of Representatives provided for in Article I, Section 2, Clause 3 itself. See 3 Farrand at 260 (statement of Caleb Strong in the Massachusetts ratifying Convention); 3 Annals of Cong. 249 (1791) (Rep. Sedgwick).

standably do not urge that it be enforced in this case, since it would not result in an additional Representative for Montana this year. The relevant point for present purposes, however, is that the debates obviously lend no support to the district court's view that Article I, Section 2, Clause 3 implicitly embodies the *contrary* principle—namely, that Congress *must* take fractions into account, and apparently must do so pursuant to the complex formula of harmonic means. See page 12, *supra*. The latter notion in particular ignores "that it is a *constitution* we are expounding," *McCulloch v. Maryland*, 17 U.S. (4 Wheat.) at 407, and it also cannot be squared with Madison's observation, concerning the ratio between Representatives and the people, that "[n]othing can be more fallacious than to found our political calculations on arithmetical principles." *The Federalist* No. 55, at 374.²⁹

2. The history of apportionment since 1787 rests on a construction of the Constitution that permits Congress to select from a variety of possible apportionment methods.

a. The circumstances surrounding passage of the first apportionment statute show that the Framers—many of whom were then serving in Congress or the Executive branch—had sharply contrasting views on the problem

²⁹ In September 1789, Congress proposed an amendment to the Constitution to provide that once the number of Representatives reached a specified level, "the proportion shall be so regulated by Congress, that there shall not be less than two hundred Representatives, nor more than one Representative for every fifty thousand persons." 1 Stat. 97. That amendment elaborated upon the general standards already set forth in Article I to place outer limits on Congress's decisions concerning the composition of the House. The principle expressed by the amendment—that Congress may "regulate" the "proportion"—demonstrates that the contemporaneous view of Congress's power in this area when the Constitution was adopted is inconsistent with the proposition that Congress's power must be narrowly circumscribed in the manner the district court and appellees now urge. Although the amendment fell one State short of ratification, the apparent reasons are unrelated to the amendment's recognition of a broad power in Congress to "regulate" apportionment of Representatives among the States. See generally Amar, *The Bill of Rights as a Constitution*, 100 Yale L. J. 1131, 1137-1143 (1991).

of fractional remainders. In the Second Congress, the House initially passed an apportionment bill based on what has come to be known as the Jefferson method, under which fractions are disregarded. The Senate countered with a bill allocating a total of 120 Representatives; although the method of apportionment was not specified, the bill apparently was designed to achieve the desired total by allocating Representatives to the States having the highest fractional remainders (what has come to be known as the Vinton or Hamilton/Vinton method). In March 1792, after considerable debate,³⁰ the House acquiesced in the Senate bill, which passed both Houses by a narrow margin. See 3 Annals of Cong. 482-483, 540-541 (1792); S. Doc. No. 119, 22d Cong., 1st Sess. 10-11 (1832); H.R. Doc. No. 234, 22d Cong., 1st Sess. 6, 10 (1832); 1 J. Story, *Commentaries on the Constitution* §§ 680-683 (2d ed. 1851).

Secretary of State Jefferson recommended that the bill be vetoed because (1) it assigned Representatives on the basis of fractional remainders, which, he believed, the Constitution does not allow; (2) there was no single ratio that would produce the apportionment prescribed by the bill; and (3) one of the ratios on which the apportionment apparently was based exceeded the constitutional maximum of one Representative for every 30,000 persons (see Art. I, § 2, Cl. 3), which in his view must be applied on a State-by-State basis, rather than with reference to the population of the Nation as a whole. Attorney General Randolph agreed with Jefferson on the latter point. See H.R. Doc. No. 234, *supra*, at 9-12. By contrast, Secretary of the Treasury Hamilton recommended against a veto. Hamilton was of the opinion that the maximum of one Representative for every 30,000 persons could be construed to apply either on a State-by-State or nationwide basis, and that the actual apportionment was "most consistent with *equality*"; he accordingly

³⁰ See, e.g., 3 Annals of Cong. 200-204, 243-250, 254-274 (1791); *id.* at 331-336, 403-405, 407-414 (1792).

believed it "proper that the legislative sense should prevail." *Id.* at 8. Secretary of War Knox also recommended against a veto. *Id.* at 8-9.

On April 5, 1792, President Washington vetoed the bill on the grounds that (1) there was "no one proportion or division which, applied to the respective numbers of the States, will yield the number and allotment of Representatives proposed by the bill"; and (2) "the bill has allotted to eight of the States more than one [Representative] for every thirty thousand" persons. 3 Annals of Cong. 539 (1792). Congress failed to override the veto, *id.* at 541, and soon thereafter it passed a law that met the President's objections and disregarded all fractions. Act of Apr. 14, 1792. See generally *Fair Representation* at 10-22.

The divergent views of the Members of Congress and the Executive Branch who were involved in the first apportionment strongly support the conclusion that Article I, Section 2, Clause 3 reasonably can be construed to permit various approaches to the allocation of Representatives among the States. That contemporaneous understanding is entitled to considerable weight in construing the Constitution. See, e.g., *Bowsher v. Synar*, 478 U.S. 714, 723-724 (1986); *Marsh v. Chambers*, 463 U.S. 783, 790 (1983). Moreover, the Second Congress's decision to use a method that disregarded fractions obviously undermines the district court's notion that Article I, Section 2, Clause 3 actually *requires* fractions to be taken into account in a particular way.

b. The Jefferson method was used in the next four apportionments. In 1832, however, John Quincy Adams advocated a method that was the mirror image of Jefferson's: it would have required that an additional Representative be awarded for every fractional remainder, no matter how small. In the same year, Daniel Webster first proposed the method of major fractions, which was utilized in 1842 and then replaced by the Vinton method in 1850. See pages 5-6 & nn.4, 5, *supra*.

The district court, in support of its holding that the Constitution requires a method that minimizes absolute differences between States with respect to the number of persons per Representative (i.e., the average size of their congressional districts), relied on Webster's statement in 1832 that Congress must apportion Representatives among the States according to their respective numbers "as near as may be." J.S. App. 11a n.2 (quoting *Fair Representation* at 31); see S. Doc. No. 119, *supra*, at 4. There are two ironies in the court's invocation of Webster's remarks. First, he was advocating the method of major fractions, which minimizes absolute differences between each person's share of a Representative, *not* the number of persons per Representative (the measure of equity the district court found to be constitutionally compelled). Second, the major fractions method Webster endorsed would *not* yield an additional Representative for Montana this year. 2 J.A. 76. In addition, Webster expressed the view—contrary to that of the district court—that "the constitution prescribes no particular process by which th[e] apportionment is to be wrought out" (S. Doc. No. 119, *supra*, at 5), and he urged a standard of "relative equity" (*id.* at 4, 5, 6), which of course is the whole point of the equal proportions method that the district court found to be constitutionally deficient.³¹

³¹ Webster's statement cuts against the district court's holding in another respect as well. Webster described the opposition to his method as assuming that "every member of the House of Representatives represents, or ought to represent, the same, or nearly the same, number of constituents; that this number is to be regarded as an integer; and anything less than this is therefore called a fraction or a residuum, and cannot be entitled to a representative." S. Doc. No. 119, *supra*, at 8. Webster responded that the Constitution "contemplates no * * * common number for the constituents of a member of the House of Representatives," but instead "provides for the apportionment of representatives among the several States according to their respective numbers, and stops there"; the Constitution, he said, "makes no provision for the representation of districts," which it "leaves to State legislation," since the right to a "portion of the representative power * * * belongs to the

c. The Fourteenth Amendment was proposed in 1866 and ratified in 1868 against the backdrop of Congress's consideration and use of a number of different apportionment methods over the preceding decades. The first sentence of Section 2 of the Amendment reiterates verbatim the relevant language in Article I, Section 2, Clause 3. In light of Congress's past practice, the incorporation of this language into the Fourteenth Amendment is most appropriately viewed as a ratification of the flexibility it was understood to confer on Congress to utilize whatever population-based apportionment method Congress deemed appropriate. See *Mobil Oil Exploration & Producing Southeast Inc. v. United Distribution Companies*, 111 S. Ct. 615, 624 (1991); *Merrill Lynch, Pierce, Fenner & Smith, Inc. v. Curran*, 456 U.S. 353, 378-382 (1982). Moreover, as Congress was well aware at the time it proposed the Fourteenth Amendment, the Census Act of 1850 then required that apportionment be conducted in accordance with the Vinton method. See pages 7-8, *supra*.³² It therefore cannot seriously be maintained that the Vinton method, if used today, would *violate* the Constitution; yet that conclusion logically follows from the district court's holding that the particular measure of equity served by the harmonic means method is constitutionally compelled.

State, as a State." *Ibid.* Webster's emphasis on the State's overall share of representation in the House substantially undermines the district court's holding that the exclusive test of compliance with Article I, Section 2, Clause 3 is a comparison of the average sizes of congressional districts within the States.

³² See Cong. Globe, 39th Cong., 1st Sess. 357-358 (1866) (Rep. Conkling) (describing table showing apportionment under Section 2 calculated "in the mode practiced under the present law," which was based on "largest fractions"). There were frequent references by other Members to Rep. Conkling's table. *Id.* at 404 (Rep. Lawrence); *id.* at 1103 (Rep. Stewart); *id.* at 1232 (Sen. Doolittle); see also *id.* at 1315 (Rep. Ashley); *id.* at 2767 (Sen. Howard); *id.* at App. 256 (Rep. Baker).

d. Congress continued to apportion Representatives by the Vinton method until 1911.³³ It then used the major fractions method on several occasions before firmly settling on the equal proportions method in 1941. The background of the 1941 Act, and its 1929 precursor, shows that Congress continued to construe the relevant constitutional provisions as not compelling it to adopt any particular apportionment method. That was the view, for example, of Senator Hugo Black,³⁴ who endorsed the equal proportions method³⁵—and who later, as a Member of this Court, wrote the decision in *Wesberry v. Sanders*, on which the district court and appellees now principally rely in condemning that method.

³³ The apportionment acts passed between 1872 and 1911 required that the Representatives allocated to each State be elected from districts "containing as nearly as practicable an equal number of inhabitants." Act of Feb. 2, 1872, § 2, 17 Stat. 28; Act of Feb. 25, 1882, § 3, 22 Stat. 5; Act of Feb. 7, 1891, § 3, 26 Stat. 735; Act of Jan. 16, 1901, § 3, 31 Stat. 734; Act of Aug. 8, 1911, § 3, 37 Stat. 14; see *Wood v. Broom*, 287 U.S. 1, 6 (1932). Thus, Congress, which has plenary authority in this area, apparently perceived no inconsistency between a requirement (such as that announced in *Wesberry*) that districts within a State be equal in population to the extent practicable, and its use of a method for apportioning Representatives among the States that is not based on an inflexible rule of absolute equality (to the extent practicable) of average district sizes between States.

³⁴ See 70 Cong. Rec. 4244 (1929) (quoting the 1921 report of the advisory committee to the Director of the Census Bureau) ("It is clear that the Constitution requires that the allocation of Representatives among the several States shall be proportionate to the distribution of population. It is not equally clear that there is anything in the constitutional requirement which suggests that one of the forms in which such apportionment ratios or proportions may be expressed should be preferred to another.") See also 87 Cong. Rec. 8055 (1941) (Sen. Burton); S. Rep. No. 2, 71st Cong., 1st Sess. 5 (1929); 71 Cong. Rec. 1613-1614 (1929) (Sen. Vandenberg); *id.* at 1842 (Sen. Gillett); 13 Cong. Rec. 1103 (1882) (Rep. Converse).

³⁵ 70 Cong. Rec. 4244 (1929); 71 Cong. Rec. 1336, 2071-2073 (1929).

Congress's formal adoption of the equal proportions method in 1941 followed extensive consideration of the issue stretching back over two decades. Congress acted with full knowledge of the historical practice and on the basis of the advice of numerous experts in the field, including the advisory committee to the Director of the Census in 1921 and the special NAS committee in 1929.³⁶ As we have explained, those studies proved that in a pairwise comparison between any two States, the equal proportions method minimizes the relative (percentage) difference in the number of persons per Representative and each person's share of a Representative, which were thought to be better indicators of equity than the absolute difference in either ratio. By contrast, harmonic means and major fractions were found to minimize only absolute differences, and to do so only with respect to one of the standards just mentioned (*i.e.*, either the number of persons per Representative or each person's share of a Representative, but not both). See also pages 46-47, *infra*.³⁷

³⁶ See H.R. Rep. No. 30, 77th Cong., 1st Sess. 1-2 (1941); S. Doc. 304, 76th Cong., 3d Sess. (1940); 87 Cong. Rec. 8052 (1941) (Sen. Caraway); *id.* at 8058 (Sen. Burton); *id.* at 1128 (Rep. Mills); 71 Cong. Rec. 2071-2073 (1929) (Sen. Black); *id.* at 2151-2152 (Sen. Pittman); *id.* at 2715 (Rep. Gibson); 70 Cong. Rec. 4964-4967 (1929). A Brookings Institution study in 1941 likewise found equal proportions to be "more desirable than any other method that has been devised." *Congressional Apportionment* at 72.

³⁷ "The relative difference between two numbers consists of subtracting the smaller number from the larger number and then dividing the result by the smaller number." Ernst Decl. ¶ 12 (J.A. 24); see NAS Report (J.A. 18); *Congressional Apportionment* at 8.

The Ernst Declaration filed in the district court illustrates the significance of the distinction between absolute and relative differences by an example in which the nationwide average district size is 600,000, and States A and B have average district sizes of 1,200,000 and 300,000, respectively. For State A, the absolute difference between the nationwide average and the statewide average is 600,000; for State B, it is 300,000. However, both States have relative differences from the nationwide average of 100%, because in State A the average district size is twice as large as the national

In addition, the studies concluded that equal proportions occupies a neutral position with respect to large and small States, while major fractions favors large States and harmonic means favors small States. See page 13, *supra*.

With this legislative record before it, there can be little question that Congress conscientiously carried out its responsibility to apportion Representatives among the States by adopting a method that is both equitable and tied to the respective populations of the States. Neither the district court nor appellees have pointed to any subsequent developments that cast the slightest doubt on the reasonableness of Congress's judgment in 1941. To the contrary, further studies and the record in this case substantiate the soundness of Congress's choice. As we have explained (see pages 14-15, *supra*), the 1948 NAS Report by leading mathematicians demonstrated that the equal proportions method performs better than each of the four alternatives under three out of four measures of absolute and relative equity. App., *infra*, 8a-9a. In addition, the Ernst Declaration, which appellees do not dispute (see J.S. App. 31a (O'Scannlain, J., dissenting)), shows that the equal proportions method also minimizes the total variance of the 435 congressional districts in the Nation from the ideal (nationwide average) district size. ¶ 23 (1 J.A. 29-30); accord, *Fair Representation* at 104-105.³⁸

average, and in State B it is twice as small. ¶ 21 (J.A. 28). "In relative terms, any district of size less than 300,000 would present a greater inequity than a district of size 1,200,000. In absolute terms * * *, a district of size 1,200,000 presents a greater inequity than even a district of size 1 (which has an absolute difference of 599,999)." *Ibid*.

³⁸ The variance is the sum of the squares of the deviations by each district from the ideal district size.

The record in this case also shows that as between Washington and Montana, the equal proportions method minimizes the sum of the absolute deviations from the ideal district size. Thus, under the equal proportions method, the population of Montana's single district (803,655) is 231,189 persons larger than the ideal district size (572,466), while under the Dean method, Montana would have two

4. In sum, the history of the implementation of the relevant provisions of Article I and the Fourteenth Amendment establish that Congress has periodically revised its approach to apportionment based on its accumulated experience, expanding knowledge in the field of statistical analysis, and considerations of equity and fairness, while adhering to the single textual requirement that apportionment of Representatives among the States be tied to "their respective Numbers." That evolutionary approach has necessarily rested on the understanding that the Constitution itself does not mandate any one solution to the problem. Such a longstanding, practical construction of the Constitution is entitled to great weight, *Dames & Moore v. Regan*, 453 U.S. 654, 686 (1981), "especially * * * in the case of constitutional provisions governing the exercise of political rights and hence subject to constant and careful scrutiny." *Smiley v. Holm*, 285 U.S. 355, 369 (1932) (regulation of elections under Art. I, § 4); see also *McPherson v. Blacker*, 146 U.S. 1, 27, 33 (1892) (selection of Presidential electors). That is all the more so since from the outset, leading figures in the Nation's constitutional history—Washington, Jefferson, Hamilton, Randolph, Webster, Quincy Adams, and Black—have advocated differing approaches. On this historical record, there is no merit whatever to the district court's view that the Constitution requires that Congress now discard the equal proportions method it adopted in 1941 after extensive consideration, in favor of the never-used harmonic means method.

districts that together would deviate a total of 341,276 from the ideal district size. Correspondingly, under the equal proportions method, Washington has nine districts with a total deviation of 264,249 from the ideal district size, while the Dean method would result in a total deviation of 308,216. J.S. App. 29a-30a (O'Scannlain, J., dissenting); Ernst Decl. ¶¶ 18, 19 (1 J.A. 26-27).

C. *Wesberry v. Sanders* And Its Progeny Do Not Undermine The Constitutionality Of 2 U.S.C. 2a

Without even discussing the 200-year history of Congress's apportionment of Representatives, the district court held 2 U.S.C. 2a unconstitutional in reliance on *Wesberry v. Sanders*, 376 U.S. 1 (1964). See J.S. App. 9a-18a. *Wesberry*, however, is wholly inapposite here.

1. *Wesberry* and its progeny concerned a *State legislature's* drawing of congressional districts *within* a State, from which the people of the State would elect whatever number of Representatives were allocated to it. This case, by contrast, concerns *Congress's* apportionment of Representatives *among* the States. In *Wesberry*, the Court held that a state legislature must seek to achieve the standard of "one person, one vote" by drawing congressional districts within the State that, as nearly as practicable, contain equal numbers of people. 376 U.S. at 7-8; see also *Karcher v. Daggett*, 462 U.S. 725, 730-731 (1983). *Wesberry* did not address the antecedent question of how many Representatives should be allocated to the State (and therefore how many congressional districts it should have) in the first place.

Furthermore, the decision in *Wesberry* rests on *Clause 1* of Article I, Section 2, which provides that Representatives shall be chosen "by the People of the several States." See 376 U.S. at 7-8; *Reynolds v. Sims*, 377 U.S. at 559, 560. That Clause had previously been construed to afford a personal right to vote in federal elections. See *Wesberry*, 376 U.S. at 17 (citing *Ex parte Yarbrough*, 110 U.S. 651 (1884), and *United States v. Classic*, 313 U.S. 299 (1941), both of which rested on Clause 1 of Article I, Section 2 (see 110 U.S. at 663; 313 U.S. at 314)). *Wesberry* essentially extrapolated from those decisions to hold that a State may not dilute the right to vote by drawing congressional districts that have substantially unequal populations. 376 U.S. at 17-18. That holding has no application in this case, which involves neither a

State's regulation of the election of its Representatives nor the drawing of congressional districts within a State. Indeed, the limits of *Wesberry* are established by Clause 1 itself, which concerns the election of Representatives "by the People of the *several* States"—i.e., by the distinct body of people within each of the separate sovereign States that comprise the Union.³⁹ The quoted text does not speak to the distinct issue of apportioning to the States the Representatives who, in turn, will be elected by the people thereof. That subject is instead dealt with by Clause 3 of Article I, Section 2.

Unlike Clause 1, Clause 3 does not mention the "People" of the several States—and therefore does not suggest that it confers on the "People" of a State any personal rights with respect to the apportionment of Representatives by Congress. Rather, Clause 3 provides for apportionment of Representatives to the States themselves, based on their aggregate populations ("respective Numbers").⁴⁰ There accordingly is no textual basis for the district court's holding that the Constitution *requires* Congress to apportion Representatives in a way that minimizes the absolute difference between the average size of congressional districts within "the several States."

Moreover, unlike drawing congressional districts within a State, for which near perfect equality of representation for equal numbers of people is practicably attainable (see,

³⁹ The definition of the word "several" when the Constitution was adopted was "a state of separation; or partition." See 2 S. Johnson, *A Dictionary of the English Language* (1755) (Hildesheim facsimile ed. 1968):

⁴⁰ See note 31, *supra* (quoting S. Doc. No. 119, *supra*, at 8 (statement of Senator Webster)); 3 Annals of Cong. 545 (1792) (Rep. Giles) ("representation of the people through the medium of the several States"); *Garcia v. San Antonio Metropolitan Transit Authority*, 469 U.S. 528, 550-552 (1985); Wechsler, *The Political Safeguards of Federalism: The Role of the States in the Composition and Selection of the National Government*, 54 Colum. L. Rev. 543, 546-547, 549-552, 558-560 (1954).

e.g., *Karcher v. Daggett*, *supra*), apportionment of Representatives among the States under *any* available method would almost inevitably result in differences of several hundred thousand in the population of congressional districts. 2 J.A. 69-70. Because such differences are inherent in the exercise by Congress of its plenary power to implement Clause 3 and the Fourteenth Amendment, variations in the amounts of those differences under various apportionment formulae do not violate the Constitution, so long as the variations are the consequences of apportionments that are rationally tied to the "respective Numbers" of the States.

2. In any event, 2 U.S.C. 2a is constitutional even if we assume, *arguendo*, that the principles of *Wesberry* are applicable. In the first place, equality of representation—and the principle of one person/one vote—may be expressed either in terms of persons per Representative or Representatives per person (each person's share of a Representative), and "there is no inherent reason for the choice of one rather than the other." Chafee, 42 Harv. L. Rev. at 1031. It follows that there is no basis in the principles of *Wesberry* for preferring the harmonic means method that the district court and appellees endorse.⁴¹ For although harmonic means is superior to the other four methods in minimizing absolute differences between persons per Representative, it actually is *inferior* to equal proportions in minimizing absolute differences between each person's share of a Representative. Conversely, although major fractions is superior to the other four methods in minimizing absolute differences between each person's share of a Representative, it is inferior to equal proportions in minimizing absolute differences

⁴¹ "Indeed, [per capita representation] is perhaps the most natural one to consider when interpreting the Supreme Court's dictum that 'as nearly as is practicable one man's vote in a Congressional election is to be worth as much as another's.'" *Fair Representation* at 53 (quoting *Wesberry*, 376 U.S. at 7-8).

between persons per Representative. 1948 Report (App., *infra*, 8a-9a); *Fair Representation* at 53. Thus, equal proportions occupies a middle ground between harmonic means and major fractions with respect to both *absolute* measures of equity, while being superior to harmonic means and major fractions with respect to both *relative* measures of equity.

Even if the district court were correct, however, that absolute differences in statewide average district sizes should control, the exacting standards of *Karcher* obviously could have no place here. Indeed, in view of the disparities that would unavoidably result even under the harmonic means method, the modestly greater absolute disparity under the equal proportions method is of far less significance here than it might be in another context. For example, under the equal proportions method, the difference between the largest statewide average district size (803,655 for Montana) and the smallest (455,975 for Wyoming) is 347,680, while under the harmonic means method, the difference between the largest (699,999 for South Dakota) and smallest (401,828 for Montana) is 298,171. 2 J.A. 69-70. In the special context of apportionment among States, this reduction of 49,509 (from 347,680 to 298,171) in the difference between the smallest and largest average districts that would result from using the harmonic means method—an amount that constitutes less than 8.7% of the nationwide average district size of 572,466 (1 J.A. 27)—is insufficient to trigger further scrutiny under *Wesberry* principles. Cf. *Brown v. Thompson*, 462 U.S. 835, 842 (1983) (10% rule for apportionment of state legislative districts).⁴² But even if the

⁴² That is especially so since under the equal proportions method, the smallest statewide average district size is for the single district in Wyoming, which has only 455,595 people. 2 J.A. 70. That district results from the threshold constitutional requirement that each State have at least one Representative, not from the selection of the equal proportions method for apportioning additional Representatives to other States. If we therefore put Wyoming's single district

8.8% deviation were sufficient to shift the burden of justification to the appellants, see *Karcher*, 462 U.S. at 740, that burden is amply satisfied here by Congress's considered judgment that the equal proportions method best protects the relative equities of the large and small States.

II. THE CONSTITUTION DOES NOT REQUIRE THAT CONGRESS ENACT A NEW APPORTIONMENT AFTER EACH CENSUS

The district court plainly erred in holding that Congress did not make a "good faith effort" to accomplish an appropriate apportionment because reapportionment under 2 U.S.C. 2a occurs on the basis of calculations by Executive Branch officials in accordance with the statutory formula in 2 U.S.C. 2a. See J.S. App. 18a-19a. As Judge O'Scannlain observed, there is "no hint" in Article I, Section 2 that "Congress must reexamine every ten years the formula it uses to address the fractional interest problem," J.S. App. 32a-33a, and that Congress therefore is precluded from invoking its usual authority to delegate such a matter to the Executive Branch under statutory standards. See, e.g., *Skinner v. Mid-America Pipeline Co.*, 490 U.S. 212, 218-220 (1989). Moreover, at the time the Fourteenth Amendment was adopted, apportionment was governed by the Census Act of 1850, which contained a similar self-executing mechanism, and the adoption of the Fourteenth Amendment therefore should be regarded as a ratification of Congress's authority to take that approach. See pages 7-8, 39, *supra*.

to one side, the next smallest statewide average district size under the equal proportions method is 502,992, for Rhode Island's two districts. The difference between that figure and the largest average district size under the equal proportions method (803,655 for Montana's single district) is 300,663. 2 J.A. 69-70. That difference is virtually identical to the difference of 298,171 between the largest and smallest statewide average district sizes under the harmonic means method.

The existence of the fixed apportionment formula in 2 U.S.C. 2a serves to eliminate the sort of bitter controversy and self-interested apportionment proposals that inevitably resulted prior to 1941, when Congress enacted an apportionment on an ad hoc basis only after the results of the most recent decennial census were already known. Such a controversy effectively prevented *any* reapportionment after the 1921 census. Thus, 2 U.S.C. 2a produces stability and promotes public confidence that representation in the House is determined in a fair and neutral manner and that the perceived advantages and disadvantages to particular States following any one census will, in the long run, even out. Congress reasonably could agree with Justice Story that "the rule [of apportionment] ought to be such, that it shall always work the same way in regard to all the states, and be as little open to cavil, or controversy, or abuse, as possible." 2 J. Story, *Commentaries on the Constitution* § 676 (1833) (quoted at J.S. App. 26a (O'Scannlain, J., dissenting)).⁴³

⁴³ The appellee Members of Congress alleged below that 2 U.S.C. 2a is unconstitutional for the additional reason that its self-executing feature deprived them of the right to vote on an apportionment act after the 1990 census. The court held that the congressional appellees have standing to press that claim (J.S. App. 5a), but did not resolve the claim on the merits because it held 2 U.S.C. 2a unconstitutional for other reasons. J.S. App. 18a n.9, 19a. Judge O'Scannlain agreed that the congressional appellees have standing to raise this claim, but he believed that it presents a nonjusticiable political question because it concerns the internal processes of Congress. *Id.* at 20a & n.1.

We disagree with the district court that Members of Congress have standing to present such a claim concerning deprivation of their right to vote in circumstances such as these; the Members retain their right to attempt to persuade the House or Senate to enact a *new* apportionment law, and any injury they suffer with respect to their right to vote is properly attributable to the failure by the House or Senate to take up the matter, not to the existence of the current apportionment law. (A similar standing issue was raised but not decided in *Burke v. Barnes*, 479 U.S. 361, 362-363

CONCLUSION

The judgment of the district court should be reversed, and the case should be remanded with directions to enter judgment for the appellants.

Respectfully submitted.

KENNETH W. STARR
Solicitor General

STUART M. GERSON
Assistant Attorney General

JOHN G. ROBERTS, JR.
Deputy Solicitor General

EDWIN S. KNEEDLER
Assistant to the Solicitor General

MICHAEL JAY SINGER

MARK B. STERN

MICHAEL S. RAAB
Attorneys

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(1987)), and our briefs in that case address the matter of congressional standing more fully.) There is no occasion for this Court to address the standing issue, however, because the appellee Members of Congress do not rely in the Motion to Affirm on this distinct claim as an alternative ground for affirmance.

APPENDIX**CONSTITUTIONAL AND STATUTORY
PROVISIONS INVOLVED**

1. Article I, Section 2, Clauses 1, 2 and 3 of the United States Constitution provide:

The House of Representatives shall be composed of Members chosen every second Year by the People of the several States, and the Electors in each State shall have the Qualifications requisite for Electors of the most numerous Branch of the State Legislature.

No person shall be a Representative who shall not have attained to the Age of twenty five Years, and been seven Years a Citizen of the United States, and who shall not, when elected, be an Inhabitant of that State in which he shall be chosen.

Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers, which shall be determined by adding to the whole Number of free Persons, including those bound to Service for a Term of Years, and excluding Indians not taxed, three fifths of all other Persons. The actual Enumeration shall be made within three Years after the first Meeting of the Congress of the United States, and within every subsequent Term of ten Years, in such Manner as they shall by Law direct. The Number of Representatives shall not exceed one for every thirty Thousand, but each State shall have at Least one Representative; and until such enumeration shall be made, the State of New Hampshire shall be entitled to chuse three, Massachusetts eight, Rhode-Island and Providence Plantations one, Connecticut five, New-York six, New Jersey four, Pennsylvania eight, Delaware one, Mary-

(1a)

land six, Virginia ten, North Carolina five, South Carolina five, and Georgia three.

2. Article I, Section 8, Clause 18 of the United States Constitution provides:

SECTION 8. The Congress shall have Power

* * * * *

To make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers, and all other Powers vested by this Constitution in the Government of the United States, or in any Department or Officer thereof.

3. Sections 2 and 5 of the Fourteenth Amendment to the United States Constitution provide:

SECTION 2. Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed. But when the right to vote at any election for the choice of electors for President and Vice President of the United States, Representatives in Congress, the Executive and Judicial officers of a State, or the members of the Legislature thereof, is denied to any of the male inhabitants of such State, being twenty-one years of age, and citizens of the United States, or in any way abridged, except for participation in rebellion, or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens twenty-one years of age in such State.

* * * * *

SECTION 5. The Congress shall have power to enforce, by appropriate legislation, the provisions of this article.

4. 2 U.S.C. 2a provides:

Reapportionment of Representatives; time and manner; existing decennial census figures as basis; statement by President; duty of clerk

(a) On the first day, or within one week thereafter, of the first regular session of the Eighty-second Congress and of each fifth Congress thereafter, the President shall transmit to the Congress a statement showing the whole number of persons in each State, excluding Indians not taxed, as ascertained under the seventeenth and each subsequent decennial census of the population, and the number of Representatives to which each State would be entitled under an apportionment of the then existing number of Representatives by the method known as the method of equal proportions, no State to receive less than one Member.

(b) Each State shall be entitled, in the Eighty-third Congress and in each Congress thereafter until the taking effect of a reapportionment under this section or subsequent statute, to the number of Representatives shown in the statement required by subsection (a) of this section, no State to receive less than one Member. It shall be the duty of the Clerk of the House of Representatives, within fifteen calendar days after the receipt of such statement, to send to the executive of each State a certificate of the number of Representatives to which such State is entitled under this section. In case of a vacancy in the office of Clerk, or of his absence or inability to discharge this duty, then such duty shall devolve upon the Sergeant at Arms of the House of Representatives; and in case of vacancies in the offices of both the Clerk and the Sergeant at Arms, or the absence or inability of both to act, such duty shall devolve upon the Doorkeeper of the House of Representatives.

(c) Until a State is redistricted in the manner provided by the law thereof after any apportionment, the Representatives to which such State is entitled under such apportionment shall be elected in the following manner: (1) If there is no change in the number of Representatives, they shall be elected from the districts then prescribed by the law of such State, and if any of them are elected from the State at large they shall continue to be so elected; (2) if there is an increase in the number of Representatives, such additional Representative or Representatives shall be elected from the State at large and the other Representatives from the districts then prescribed by the law of such State; (3) if there is a decrease in the number of Representatives but the number of districts in such State is equal to such decreased number of Representatives, they shall be elected from the districts then prescribed by the law of such State; (4) if there is a decrease in the number of Representatives but the number of districts in such State is less than such number of Representatives, the number of Representatives by which such number of districts is exceeded shall be elected from the State at large and the other Representatives from the districts then prescribed by the law of such State; or (5) if there is a decrease in the number of Representatives and the number of districts in such State exceeds such decreased number of Representatives, they shall be elected from the State at large.

5. 13 U.S.C. 141 (a) and (b) provide:

Population and other census information

(a) The Secretary shall, in the year 1980 and every 10 years thereafter, take a decennial census of population as of the first day of April of such year, which date shall be known as the "decennial census date", in such form and content as he may determine, including the use of sampling procedures

and special surveys. In connection with any such census, the Secretary is authorized to obtain such other census information as necessary.

(b) The tabulation of total population by States under subsection (a) of this section as required for the apportionment of Representatives in Congress among the several States shall be completed within 9 months after the census date and reported by the Secretary to the President of the United States.

* * * * *

REPORT to the PRESIDENT of the
NATIONAL ACADEMY OF SCIENCES [*]

The Committee appointed by you, in response to the concurrent resolution of the House of Representatives and the Senate

"That the National Academy of Sciences be requested to transmit to the Speaker of the House and President pro tempore of the Senate a report upon developments in the mathematical aspects of the apportionment problem as it affects the Congress of the United States since its previous report in 1929 and upon the papers and studies relating to that problem"

submits the following report.

An extensive historical and critical review of the problem up to 1941 was prepared for the Brookings Institution by Laurence F. Schmeckebier (1) and published by the Institution. This report contains an analysis of the methods proposed to that date and refers to various papers concerning it.

As far as the committee knows, the only paper since then containing a proposal to be considered was prepared by Professor Walter F. Willcox (2) of Cornell University for the meeting of the International Statistical Institute, September 6-18, 1947, in Washington, D.C. Professor Willcox is the author of the Method of Major Fractions which was used for reapportionment based upon the census of 1930. In his recent paper he proposed what he calls the Modern House method and states that in fact it is the Method of Smallest Divisors, described and analyzed in the Brookings report, and which was considered by the Academy Committee in 1929. Later in its report the present committee will comment upon Professor Willcox's proposal.

The Constitution provides that "Representation shall be apportioned among the several states according to their

[* Tables omitted]

respective numbers, counting whole numbers of persons in each state, excluding Indians not taxed." . . . "But each state shall have at least one representative."

In order to carry out this provision one divides the total population by the number of representatives and obtains the number of persons a member of the House would normally represent. For the 1940 Census with 435 members of the House this number is 301,164. If, as in the case of Nevada, Wyoming, and Delaware, the population of a state is smaller than this number, each such state is assigned one representative. Then the population of each state is divided by this number to obtain its number of representatives. The result in each case is a whole number and a fraction. Since fractional representation has not been so far introduced, this means that the difference between the fixed membership of the House and the sum of the whole numbers obtained by the above divisions leaves a number of seats to be assigned, if in fact the membership of the House is fixed and not reduced to the sum of the whole numbers obtained.

The problem of handling these fractions has concerned the Congress from the beginning of the republic: a description of the methods used and an analysis of them are given in the Brookings report. The report states that there are the following five workable methods which have been proposed:

- Method of Smallest Divisors (SD)
- Method of the Harmonic Mean (HM)
- Method of Equal Proportions (EP)
- Method of Major Fractions (MF)
- Method of Greatest Divisors (GD)

It is our understanding that Public Law 291 (H.R. 2665) directs that all future apportionments of representatives in the Congress shall be made by the method EP. We shall accordingly give special attention to this method. For reference to E. V. Huntington who first proposed the method EP, see the Brookings report.

For each of the five methods a mathematical formulation exists derived from the hypothesis on which the method is based. A procedure for calculating the allotment by each method has been developed and is described in the Brookings report. When an allotment has been worked out in accordance with these procedures the question arises whether the allotment is equitable between each pair of states.

It has been mathematically demonstrated (see Brookings report, p. 69) that the five methods listed above, in comparison of states by pairs, favor the smaller states, in the order listed, starting with the most favorable, namely SD. A change of method from EP to SD would favor the small states considerably. To make this clear the number of representatives assigned to the respective states under the above five methods has been given in two tables, one for the 1930 and one for the 1940 census.

To compare the allotment of representatives under different methods still further, let A be the population of a given state and a the number of representatives assigned

this state. The ratio $\frac{A}{a}$ is called the district population

of the state or more accurately the *state-averaged district population*. The ratio $\frac{A[*]}{a}$ is the *share in a repre-*

sentative which each individual in the state has. In these terms four different criteria of fairness in a comparison between two states have been distinguished. According to these standards one should leave the allotment of representatives to states A and B unchanged, or take a representative from A and give it to B, or take a representative from B and give it to A, so as to minimize one of the following differences:

[* Apparently should be $\frac{a}{A}$]

- (1) The difference between the two state-averaged district populations (Minimum achieved by HM)
- (2) The difference between the share in a representative for the two states (Minimum achieved by MF)
- (3) The difference in (1) taken as a per cent. of the smaller district population (Minimum achieved by EP)
- (4) The difference in (2) taken as a per cent. of the smaller share in a representative (Minimum achieved by EP)

A method such as EP will be said to be *superior* to a method such as MF by test (1) if for every pair of states and for any conceivable district populations the difference (1) is never smaller when the method EP is used than when MF is used. Since the comparison of different pairs of states may yield different results, a test, such as (1), may not show either EP or SD to be superior to the other. Superiority by tests (2), (3), and (4) is similarly defined. With this understood, one can compare EP with each of the other four methods as follows:

Comparing EP with MF, EP is superior by tests (1), (3), (4), and inferior by (2).

Comparing EP with SD, EP is superior by tests (2), (3), (4), and there is no general rule for test (1).

Comparing EP with HM, EP is superior by tests (2), (3), (4), and inferior by (1).

Comparing EP with GD, EP is superior by tests (1), (3), (4), and there is no general rule for (2).

Thus in the above four comparisons EP scores decisively in each case. Those comparisons which are here made for the first time have been established algebraically by a member of the committee.

Concerning Professor Willcox's proposals. This report would not be a reply to the request of the National Academy if it did not analyze the recent paper of Professor Willcox. Professor Willcox has suggested that there are other methods of comparison than the five methods pre-

viously discussed. The committee has studied even broader classes of methods in which the divisors are between the extreme divisors of GD and SD, and the conclusions of the committee as stated above should be understood as made on this basis.

Professor Willcox states, "If Congress wishes to give the largest possible number of seats to populous states it should use one extreme method" GD; on the contrary the committee has found that it is possible to formulate a method for a fixed membership in the House in which the divisors are between the extreme divisors of GD and SD, which is as favorable to the populous states as GD, and in certain cases more favorable.

Professor Willcox states further, "If Congress wants to get the closest possible approach to equality in the district population of the 48 states it should use the other extreme method" SD. This is contradicted by earlier results in this report proved in the Brookings report, that EP is superior to SD under test (3), and HM superior to SD under test (1).

Professor Willcox raises the question of minimum range, meaning thereby the difference between the largest and smallest state-averaged district populations of the whole 48 states. He implies that in the case of the 1940 census SD gives a smaller minimum range than does EP. On page 14 he finds this range when the method of EP is used and when the method of SD, using only the states in which the two methods actually produce differences and in addition Nevada. It seems more reasonable, however, to make the comparison using all the states which are *really in competition* for representatives excluding states such as Nevada which receive one representative by law, but which by no proposed method have a chance of receiving a second. Nevertheless Willcox includes Nevada. If Nevada is excluded from his list the range, using EP, is slightly less than that using SD. Apart from this criticism of Willcox's table the committee does not feel that a comparison of the range of state-averaged district popu-

ations resulting from a use of the different methods under discussion will show any trend which is significant with the considerable differences in equity when states are compared in pairs.

Tables are included in this report which give the state-averaged district populations under the 1930 and 1940 census. These tables show that if Nevada is omitted EP yields a smaller range than SD in 1940 and a larger range in 1930. A closer examination of the tables will reveal that such a test depends upon the relatively erratic behavior of the populations of a few small states, and there is small probability that it will be influenced by the population of the large states in which the great majority of the people live. To use the language of gunfire, the test of minimum range makes the evaluation of a method depend upon a few eccentric shots, and in this sense is a random determination of value.

Summary. The committee is unaware of any new method which has been explicitly developed in workable detail since 1920 which goes beyond the five methods discussed above. This report points out that the claim of Willcox that the method of SD minimizes the discrepancy between state-averaged district populations is not valid in general. An over-all comparison of EP and SD by means of range of state-averaged district populations is not believed likely to reveal a significant trend, compared with the clear differences in equity of the five methods when states are compared in pairs. The accompanying tables illustrate the way in which SD favors the small states.

As compared with all other methods, the present legal method EP is the best for minimizing the per cent. discrepancy in the state-averaged district populations and the individual's share in a representative. Comparing EP with each of the other four methods by the criteria (1), (2), (3), (4), the total score in favor of EP against the four other methods is decisive. The method of EP stands in a middle position as compared with the other methods.

It is for Congress to decide which of the above comparisons are significant, which most nearly meets the requirements of the Constitution, and choose accordingly.

/s/ Marston Morse

/s/ John von Neumann

/s/ Luther P. Eisenhart, Chairman

Princeton, New Jersey, May 28, 1948.

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No. 91-860

Supreme Court, U.S.

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In The
Supreme Court of the United States

October Term, 1991

UNITED STATES DEPARTMENT OF COMMERCE;
ROBERT A. MOSBACHER, Secretary of the United States
Department of Commerce; BUREAU OF THE CENSUS;
BARBARA EVERITT BRYANT, Director of the Bureau of
the Census; and DONNALD K. ANDERSON, Clerk of the
United States House of Representatives,

Appellants,

vs.

THE STATE OF MONTANA; STAN STEPHENS, Governor
of the State of Montana; MARC RACICOT, Attorney Gen-
eral for the State of Montana; MIKE COONEY, Secretary
of State for the State of Montana; MAX BAUCUS, United
States Senator; CONRAD BURNS, United States Senator;
PAT WILLIAMS, United States Representative; and RON
MARLENEE, United States Representative,

Appellees.

On Appeal From The United States District Court
For The District Of Montana

BRIEF OF APPELLEES

MARC RACICOT*
Attorney General
CLAY R. SMITH
Solicitor
ELIZABETH S. BAKER
Assistant Attorney General
State of Montana
Justice Building
215 North Sanders
Helena MT 59620-1401
(406) 444-2026

*Counsel of Record

February 1992

QUESTION PRESENTED

Does the standard of equal representation for equal numbers of people under Article I, section 2 of the United States Constitution, as enunciated by this Court in *Wesberry v. Sanders*, 376 U.S. 1, 7 (1964), apply to apportionment of representatives among the several States?

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No. 91-860

—◆—
In The
Supreme Court of the United States
October Term, 1991
—◆—

UNITED STATES DEPARTMENT OF COMMERCE, et al.,
Appellants,
vs.

THE STATE OF MONTANA, et al.,
Appellees.

—◆—
On Appeal From The United States District Court
For The District Of Montana
—◆—

BRIEF OF APPELLEES
—◆—

STATEMENT

The appellants' brief includes an exhaustive historical review of the statutory schemes that have governed congressional apportionment for the past two centuries. (Appellants' Br. at 5-15.) Their brief draws from that review in developing the argument that Article I, section 2 of the Constitution permits Congress virtually unfettered discretion in selecting an appropriate apportionment scheme. The appellants, however, neglected to review the historical development of Article I, section 2 itself, a history vital to the interpretation of the constitutional language. Since the standards advocated by Montana herein emanate from the principles of equal

representation that gave birth to the House of Representatives, an historical overview of the framing of Article I, section 2, as well as the construction given that section by the Second Congress, prefaces the appellees' argument.

I. CONSTITUTIONAL BACKGROUND

When the Framers of the United States Constitution met in Philadelphia in the summer of 1787, the first proposals laid before the convention by Edmund Randolph of Virginia expressed the principle of a National Legislature in which rights of suffrage "ought to be proportioned to the Quotas of contribution, or to the number of free inhabitants, as the one or the other rule may seem best in different cases." 1 M. Farrand, *The Records of the Federal Convention of 1787*, at 20 (1966 ed.) (hereafter *Farrand*). The basis for representation in the National Legislature quickly became controversial; consideration of the issue was initially postponed for the reason that the delegation from Delaware was prohibited by its credentials from changing the Article in the Confederation establishing an equality of votes among the States. 1 *Farrand* at 4, 37-40.

The Virginia plan, presented by Randolph, called for two legislative branches, in which representation was to be based upon the people at large. The New Jersey plan, on the other hand, called for a unicameral legislature in which each State had an equal vote. 1 *Farrand* at 252. The Virginia plan's provision for two legislative branches was the basis upon which discussions concerning distribution of representation took place.¹ "As soon as it was settled that the legislative power should be divided into two

¹ See 1 *Farrand* at 48 (resolution "that the national Legislature ought to consist of two branches" agreed to without debate or dissent except that of Pennsylvania).

separate and distinct branches, a very important consideration arose in regard to the organization of those branches respectively." 1 J. Story, *Commentaries on the Constitution* § 572, at 422 (1851 ed.). The issue that divided the delegation was whether membership in the two branches should be proportionate to population or whether each State should have an equal voice.²

Intimately intertwined with that issue was whether the members of the legislature should be elected by the people or by the State legislatures. Under the Confederation, the delegates to Congress were elected by the State legislatures in all the States but two. 1 J. Story, *supra*, § 574, at 424-25. Nonetheless, the colonies were familiar with a house of representatives of some sort, "emanating directly from, and responsible to, the people." *Id.* § 573, at 422. "Experience, as well as theory, had settled it in their minds, as a fundamental principle of a free government, and especially of a republican government, that no laws ought to be passed without the co-operation and consent of the representatives of the people; and that these representatives should be chosen by themselves, without the intervention of any other functionaries to intercept or vary their responsibility." *Id.* § 573, at 423.

² As James Madison wrote to Martin Van Buren more than 40 years after the Convention:

The threatening contest, in the Convention of 1787, did not, as you supposed, turn on the degree of power to be granted to the Federal Govt: but on the rule by which the States should be represented and vote in the Govt: the smaller States insisting on the rule of equality in all respects; the larger on the rule of proportion to inhabitants: and the Compromise which ensued was that which established an equality in the Senate, and an inequality in the House of Representatives.

3 *Farrand* at 477 (letter of May 13, 1828).

Application of the principle of popular elections to the federal government did not, however, enjoy universal agreement. Delegates Elbridge Gerry of Massachusetts and Roger Sherman of Connecticut were reluctant: the people, said Sherman, "want information and are constantly liable to be misled." 1 *Farrand* at 48. George Mason of Virginia, in contrast, opined that the larger branch of the Legislature "was to be the grand depository of the democratic principle of the Govt. It was, so to speak, to be our House of Commons - It ought to know & sympathize with every part of the community; and ought therefore to be taken not only from different parts of the whole republic, but also from different districts of the larger members of it." *Id.* at 49. Mason's sentiments were echoed by James Wilson of Pennsylvania, who cautioned that "[n]o government could long subsist without the confidence of the people." *Id.* James Madison of Virginia "thought too that the great fabric to be raised would be more stable and durable if it should rest on the solid foundation of the people themselves, than if it should stand merely on the pillars of the Legislatures." *Id.* at 50. The delegates agreed, six in favor, two against, and two divided, that the members of the first branch of the Legislature should be elected by the people rather than by the State legislatures. *Id.*

Delegates from the small States remained steadfast, however, in their position that States have equal representation, and the controversy threatened the viability of the convention itself. William Paterson of New Jersey said: "If the sovereignty of the States is to be maintained, the Representatives must be drawn immediately from the States, not from the people: and we have no power to vary the idea of equal sovereignty." 1 *Farrand* at 251. Alexander Hamilton of New York countered that the small States' insistence on equality was "a contest for

power, not for liberty." *Id.* at 466. He questioned whether persons composing the small States would be "less free" than those composing the larger if representation were based upon number of inhabitants. "The State of Delaware having 40,000 souls will *lose power*, if she has 1/10 only of the votes allowed to Pa. having 400,000; but will the people of Del: *be less free*, if each citizen has an equal vote with each citizen of Pa." *Id.* William Samuel Johnson of Connecticut suggested that the two principles "ought to be combined; that in *one* branch the *people*, ought to be represented; in the *other*, the *States*." *Id.* at 461-62.

Finally, a committee was appointed, consisting of one delegate from each State, to attempt settlement of the representation issue. 1 *Farrand* at 516. The committee report recommended that each State have an equal vote in the second branch of the Legislature and that in the first branch "each of the States now in the Union shall be allowed 1 member for every 40,000 inhabitants." *Id.* at 526. The committee's report prompted considerable debate. Some delegates (*id.* at 533) believed that property, as well as number of inhabitants, should be included in the basis of representation, while others argued that the membership of new western States should be limited (*id.* at 533-34). Ultimately, the proposition regarding the basis of representation in the first branch of the legislature was referred to a committee of five. *Id.* at 538.

Postponing for a time the composition of the lower house, the delegates turned their attention to provisions concerning adjustment of its membership. Although Gouverneur Morris advocated giving the Legislature virtually unfettered discretion (1 *Farrand* at 571), the committee recommended that the requirement of a periodic census be inserted, as well as the requirement that "the Legislature shall alter or augment the representation accordingly" (*id.* at 575). Mason pointed out that the

greater the difficulty the delegates had in fixing a proper rule of representation, "the more unwilling ought we to be, to throw the task from ourselves, on the Genl. Legislature." *Id.* at 573. He argued that revision from time to time according to some permanent and precise standard was essential to fair representation. "From the nature of man we may be sure, that those who have power in their hands will not give it up while they can retain it." *Id.*

Hugh Williamson of North Carolina likewise urged the convention to make it the duty of the Legislature to do what was right and not leave it at liberty to disregard its obligations. 1 *Farrand* at 579. Agreeing, Randolph observed that the power initially allocated by the Constitution would not be voluntarily renounced, "and that it was consequently the duty of the Convention to secure its renunciation when justice might so require; by some constitutional provisions." *Id.* He continued: "If equality between great & small States be inadmissible, because in that case unequal numbers of Constituents wd. be represented by equal number of votes; was it not equally inadmissible that a larger & more populous district of America should hereafter have less representation, than a smaller & less populous district. If a fair representation of the people be not secured, the injustice of the Govt. will shake it to its foundations." *Id.* at 579-80. Randolph suggested that the Legislature's hands must be tied "in such a manner that they could not sacrifice their trust to momentary considerations." *Id.* at 580.

Madison too warned against the danger of a rotten borough system, then prevalent in England. "The power there had long been in the hands of the boroughs, of the minority; who had opposed & defeated every reform which had been attempted." 1 *Farrand* at 584. Mason, although he thought initially that the interests of the people should be left to their Representatives, knew that

the Legislature ultimately would cease to be the Representatives of the people. "As soon as the Southern & Western population should predominate, which must happen in a few years, the power wd be in the hands of the minority, and would never be yielded to the majority, unless provided for by the Constitution." *Id.* at 586. Thus, the proposal to require the taking of a periodic census and subsequent adjustment of representation was overwhelmingly approved. *Id.* at 588.

On July 16, the whole resolution regarding representation in the National Legislature, which included the original composition of the first branch thereof, was presented to the full convention. The resolution passed by a margin of five to four, with one State divided. 2 *Farrand* at 13-16. The next day, Gouverneur Morris moved to reconsider the whole resolution. The motion failed for lack of a second.³ The Convention later approved the proposal to apportion representatives using a ratio not to exceed one for every 40,000 inhabitants, and securing to each State at least one Representative. *Id.* at 214, 221, 223.⁴

³ Madison's notes indicate: "It was probably approved by several members, who either despaired of success, or were apprehensive that the attempt would inflame the jealousies of the smaller States." 2 *Farrand* at 25.

⁴ When referred to the Committee on Style and Arrangement, the pertinent provisions read as follows:

[Art. IV], Sect. 4. As the proportions of numbers in the different states will alter from time to time; as some of the States may hereafter be divided; as others may be enlarged by addition of territory; as two or more States may be united; as new States will be erected within the limits of the United States, the Legislature shall, in each of these cases, regulate the

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After Benjamin Franklin had moved for approval of the whole Constitution on September 17, 1787, and prior to the final vote, Nathaniel Gorham of Massachusetts moved that the ratio for apportionment of Representatives be reduced from 1 for every 40,000 inhabitants to 1 for every 30,000, which he felt would lessen objections to the new Constitution. 1 *Farrand* at 643-44. President Washington then rose and, on the only occasion in which he entered into the discussions of the Convention,⁵ said he "could not forbear expressing his wish that the alteration proposed might take place. It was much to be desired that the objections to the plan recommended might be made as few as possible - The smallness of the proportion of Representatives had been considered by many members of the Convention, an insufficient security for the rights & interests of the people. He acknowledged that it had always appeared to himself among the

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number of representatives by the number of inhabitants, according to the rule hereinafter made for direct taxation not exceeding the rate of one for every forty thousand. Provided that every State shall have at least one representative.

[Art. VII], Sect. 3. The proportions of direct taxation shall be regulated by the whole number of free citizens and inhabitants, of every age, sex, and condition, including those bound to servitude for a term of years, and three fifths of all other persons not comprehended in the foregoing description (except Indians not paying taxes) which number shall, within three years after the first meeting of the Legislature, and within the term of every ten years afterwards, be taken in such manner as the said Legislature shall direct.

² *Farrand* at 566, 571.

⁵ 2 *Farrand* at 644 (Madison's notes).

exceptionable parts of the plan; and late as the present moment was for admitting amendments, he thought this of so much consequence that it would give much satisfaction to see it adopted." *Id.* at 644. The motion was agreed to unanimously. *Id.*

II. LEGISLATIVE BACKGROUND: THE FIRST APPORTIONMENT BILL

During the process of ratifying the new Constitution, five States' conventions expressed dissatisfaction with its provision for determining the composition of the House of Representatives. These States "desired that the ratio should be fixed in the organic law itself rather than left to the discretion or the caprice of Congress." H. H. Ames, *Annual Report of the American Historical Association for the Year 1896: The Proposed Amendments to the Constitution of the United States During the First Century of Its History* 43 (1897). In response, James Madison introduced in the First Congress an amendment to provide for a fixed ratio. *Id.*⁶

The second session of the First Congress enacted a law for the nation's first census of population. The 1790

⁶ As finally proposed to the States, the amendment read:

After the first enumeration, there shall be 1 Representative for every 30,000 until the number shall amount to 100, after which the proportion shall be so regulated by Congress that there shall be no less than 100 Representatives nor less than 1 Representative for every 40,000 persons until the number of Representatives amount to 200, after which the proportion shall be so regulated that there shall not be less than 200 Representatives nor more than 1 Representative for every 50,000 persons.

H. H. Ames, *supra*, at 44. Although it received the necessary 2/3 approval of Congress, the amendment fell one state short of securing ratification. *Id.*

census, which took one and one-half years to complete, reported a population of 3.6 million.⁷ When the Second Congress took up the matter of apportioning representatives based upon the enumerated population, the pivotal issue became one of interpreting the Constitution's requirement of "one for every thirty Thousand." U.S. Const. Art. I, § 2, cl. 3. The debate focused on whether the aggregate population of the nation should be divided by 30,000 to obtain the number of Representatives, which would then be apportioned among the States according to their respective numbers, or whether the ratio applied to each State.⁸ Throughout the House debates regarding the

⁷ See H.R. Doc. No. 234, 22d Cong., 1st Sess. 2 (1832); C. Eagles, *Democracy Delayed: Congressional Reapportionment and Urban-Rural Conflict in the 1920s* 23 (1990).

⁸ See 3 Annals of Cong. 243 (1792) (Rep. Benson: "the Representatives of the United States shall amount to a certain number, according to the whole number of the people, say one to thirty thousand"); *id.* at 249 (Rep. Sedgwick: "representation is to be apportioned to classes of thirty thousand in each State," and "to allow a Representative to be chosen by a less number than thirty thousand, would be an open violation of the express words of the Constitution"); *id.* at 255 (Rep. Ames: "Though Congress is to apportion the members, the rule of apportionment is fixed; the number of Representatives will be one hundred twelve[,] . . . to be apportioned to each State according to its numbers"); *id.* at 265 (Rep. Madison, expressing opinion that if aggregate numbers were to be used, the State boundaries would be meaningless, and the United States might as well be one district); *id.* at 266 (Rep. Boudinot: "the whole number of Representatives, to be chosen by the whole people of the Union, was the subject contemplated by the Constitution"); *id.* at 408 (Rep. Williamson: "by the Constitution, whatever ratio was adopted it is to be applied as a divisor to the number of persons in each State *respectively*") (emphasis in original).

first apportionment bill,⁹ equality in the population of House districts was also an important concern.¹⁰ Whether such equality would best be achieved by a ratio of one for every 30,000 or some other number was the subject of much discussion,¹¹ as was the desire that the membership be as large as possible and that the constitutionally-expressed ratio be observed.¹²

⁹ Debates in the Senate were not reported. See Chafee, *Congressional Reapportionment*, 42 Harv. L. Rev. 1015, 1022 n.21 (1929).

¹⁰ See 3 Annals of Cong. 246 (1792) (Rep. Ames, suggesting that inequality of bill was apparent where "Virginia, with six hundred and thirty thousand inhabitants, would have as many members as six of the smaller States, whose aggregate numbers exceeded those of Virginia upwards of seventy thousand"); *id.* at 258 (Rep. Ames: "thirty thousand citizens, residing where they may, must possess civil rights and powers equal to thirty thousand in any other part of the Union; yet, . . . this bill, . . . directs that thirty thousand in Virginia shall have as much power as near sixty thousand in Delaware and several other States"); *id.* at 272 (Rep. Sedgwick: "equality is among the most essential principles of representation, and expressly provided for by the Constitution").

¹¹ See *id.* at 243 (Rep. Livermore, supporting a ratio of one for 33,000 persons, "enlarged on the inequality in the representation from the great fractional numbers which would result from the ratio of thirty thousand"); *id.* at 259 (Rep. Ames: "The ratio of 33,000, though not free from exception, is less unequal [than the ratio of 30,000], and leaves less unrepresented fractions"); *id.* at 265 (Rep. Madison: "The ratio of thirty-three thousand . . . will give a more equal representation than that of thirty thousand").

¹² See *id.* at 201 (Rep. White: "The question now is, whether the people shall have that share of influence in the Government to which they are entitled by the Constitution, which plainly contemplates one Representative for every thirty

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After considerable disagreement between the two houses of Congress, the House of Representatives finally approved, by a two-vote majority, the Senate's proposal for a House of 120 members.¹³ The bill became the subject of the first Presidential veto.¹⁴ After obtaining the opinions of Secretary of State Jefferson, Secretary of the Treasury Hamilton, Secretary of War Knox, and Attorney General Randolph,¹⁵ George Washington transmitted his veto message to the House of Representatives, expressing his opinion that the bill was unconstitutional.¹⁶ The basis for the veto was twofold. First, as Jefferson observed, the ratio was not uniform for all of the States;¹⁷ while the

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thousand persons"); *id.* at 244 (Rep. Findley, advocating "for adhering to the principle as that contemplated in the Constitution . . . ; despatch of public business, and a Republican representation of the people, he conceived were distinct things; he therefore should have been in favor of a larger representation"); *id.* at 273 (Rep. Laurance: "said he had always advocated a large representation, without any reference to the part of the Union from which the members are to come. Thirty thousand will give the largest number that we can get").

¹³ 3 Annals of Cong. 482 (1792).

¹⁴ *Id.* at 539.

¹⁵ See H.R. Doc. No. 234, 22d Cong., 1st Sess. (1832).

¹⁶ 3 Annals of Cong. 539 (1792).

¹⁷ H.R. Doc. No. 234, *supra*, at 6. Attorney General Randolph agreed that a uniform ratio for apportionment must be applied; "otherwise, the omission would, of itself, be glaringly unconstitutional, as creating a precedent for leaving the number of the House of Representatives, and the distribution of that number, at the mere will of every different Congress." *Id.* at 10. Jefferson recommended the disregard of fractions of population, because in every instance the fractions fell below the constitutional minimum of 30,000 persons. *Id.* at 6.

ratio for some States was one Representative for every 30,000 inhabitants, to eight States a Representative was allotted for every 27,700. Second, the latter ratio expressly violated the Constitutional maximum of one Representative for every 30,000 inhabitants which, the President concluded, "is by the context and by fair and obvious construction to be applied to the separate and respective numbers of the States."¹⁸ Following the veto, the House reconsidered the measure and applied a ratio of one Representative for every 33,000 persons, resulting in a House of 105 members.¹⁹

SUMMARY OF THE ARGUMENT

Montana's claim that 2 U.S.C. § 2a(a) violates Article I, section 2 of the United States Constitution presents a justiciable controversy for resolution by this Court. The pivotal issue in this case is whether the Constitution requires that Representatives be apportioned among the States in such a manner as to achieve, as nearly as practicable, population equality among congressional districts. That Congress is vested with the power to apportion Representatives does not insulate its exercise of such power from judicial review. In view of appellants' position that Article I, section 2 may be enforced judicially, the merits of Montana's claim must be examined in spite of the political question defense. The parties' dispute arises out of the proper construction of Article I, section 2, which contains both a grant of authority and, by use of the phrase "according to their respective Numbers," a limitation on such authority. The issue concerning the precise nature and scope of that limitation is one of

¹⁸ 3 Annals of Cong. 539 (1792).

¹⁹ *Id.* at 548.

constitutional interpretation, a matter emphatically within the province of the Court.

Both the literal language of Article I, section 2 and its historical development support Montana's position that the Constitution demands equal representation for equal numbers of people, a standard well established as governing the apportionment of congressional districts within the States and equally applicable to apportionment of Representatives among the States. Clause 1 and clause 3 of Article I, section 2, when construed in harmony with each other and in light of the Framers' intent, require that representation in the House be determined solely by the number of a State's inhabitants and distributed so as to give, as nearly as may be, each person an equal voice in the National Legislature. As the Court's reapportionment jurisprudence has unequivocally established, this standard requires that population equality among congressional districts be the fundamental goal of any reapportionment.

The present apportionment violates the right of Montana voters to equal footing in the electoral process. Application of 2 U.S.C. § 2a(a) results in disparity among district populations that could be reduced by employment of a different reapportionment scheme. That precise mathematical equality is an impossibility does not excuse the population differences that have occurred in this case, particularly where – as here – those differences could be diminished. Where voting rights are at stake, the Constitution demands strict scrutiny of governmental action. Presently, the population disparity has unconstitutionally devalued the votes of all Montanans and denied them fair and effective representation.

Whether or not Congress is constitutionally required to enact legislation to effect each new apportionment of Representatives is not before the Court. The issue was not

decided by the District Court and was not raised by either party in the questions presented for review. If the Court should rule against Montana on the issues properly presented, this issue should be remanded for determination by the District Court.

Finally, the appellants' argument that the District Court's judgment has no effect for the apportionment predicated on the 1990 decennial census misinterprets the judgment and ignores the District Court's finding that Montana voters are unconstitutionally prejudiced by the present reapportionment scheme. The District Court clearly issued its permanent injunction to secure appropriate representation for the next decade in the House and in the electoral college.

ARGUMENT

I. DETERMINATION OF THE EQUITY STANDARD IMPOSED ON CONGRESS UNDER ARTICLE I, SECTION 2 WITH RESPECT TO THE APPORTIONMENT OF REPRESENTATIVES DOES NOT CONSTITUTE A NONJUSTICIABLE POLITICAL QUESTION.

The appellants argue that a court is foreclosed from review of Congress's apportionment decisionmaking unless it is "plainly contrary to an explicit textual limitation" in Article I, section 2, clause 3. (Appellant's Br. at 28.) They admit the phrase "according to their respective Numbers" is properly viewed as constituting one such "textual limitation" but contend it requires only that the assignment of House seats be rationally related to the States' various populations. (*Id.* at 24, 27, 28.) The appellants proceed to suggest that the first, and perhaps most important, ground for political question status identified

in *Baker v. Carr*, 369 U.S. 186 (1962)²⁰ – “a textually demonstrable commitment of the issue to a coordinate political department” – exists since the method of equal proportions effects apportionments with direct reference to state population. (*Id.* at 28-29.) They further suggest that the remaining five *Baker* formulations independently support a finding of nonjusticiability. (*Id.* at 29-34.) Not only is the appellants’ treatment of the textual commitment factor inconsistent with the very purpose of the political question doctrine, but the associated analysis also directly conflicts with their reliance on the remaining *Baker* factors which, in any event, have no applicability here. The appellants’ political question reasoning thus largely refutes itself.

²⁰ In relevant part, *Baker* stated:

It is apparent that several formulations which vary slightly according to the settings in which the questions arise may describe a political question, although each has one or more elements which identify it as essentially a function of the separation of powers. Prominent on the surface of any case held to involve a political question is found a textually demonstrable constitutional commitment of the issue to a coordinate political department; or a lack of judicially discoverable and manageable standards for resolving it; or the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion; or the impossibility of a court’s undertaking independent resolution without expressing lack of the respect due coordinate branches of government; or an unusual need for unquestioning adherence to a political decision already made; or the potentiality of embarrassment from multifarious pronouncements by various departments on one question.

369 U.S. at 217.

A. Inapplicability of the First *Baker* Factor.

No one disputes that the apportionment of seats within the House of Representatives is committed to Congress under Article I, section 2, clause 3. See *Prigg v. Pennsylvania*, 41 U.S. (16 Pet.) 539, 619 (1842) (“the power to apportion representatives after [the decennial] enumeration is made, is nowhere found among the expressed powers given to Congress, but it has always been acted upon as irresistibly flowing from the duty positively enjoined by the Constitution”). That Congress is allocated power over a particular matter nonetheless has never been viewed as automatically insulating its exercise of such power from judicial review. Article I, section 8, clause 4 of the Constitution, for example, authorizes Congress “[t]o establish a uniform Rule of Naturalization,” but in *I.N.S. v. Chadha*, 462 U.S. 919 (1983), the Court rejected application of the political question doctrine, even while recognizing that “[t]he plenary authority of Congress over aliens under Art. I, § 8, cl. 4, is not open to question, [since] what is challenged here is whether Congress has chosen a constitutionally permissible means of implementing that power.” *Id.* at 940-41. Characterizing as a political question the involved alien’s claim that a legislative veto provision in 8 U.S.C. § 1254(c)(2) was invalid would therefore transform “virtually every challenge to the constitutionality of a statute [into] a political question.” *Id.* at 941; see generally Henkin, *Is There a “Political Question” Doctrine?*, 85 Yale L.J. 597, 605 n.27 (1976) (“the courts consider daily whether the political branches exercise power textually committed to them with due respect for constitutional limitations or prohibitions”). The issue here is similarly not whether Congress is charged constitutionally with the duty of apportioning Representatives but whether, in discharging that duty, it

has maintained fidelity with the Constitution's requirements. It is this issue against which the appellants' political question defense must be measured.

Paradoxically, the appellants concede not only that the Court may resolve such issue but also that the Court *must* reach it to decide their nonjusticiability claim. (Appellants' Br. at 28-29.) To the extent the political question doctrine is viewed as barring determination of a controversy's merits, the appellants effectively admit the justiciable nature of Montana's challenge to 2 U.S.C. § 2a(a). See generally Henkin, *supra*, 85 Yale L.J. at 599 ("[I]n 'pure theory,' a political question is one in which the courts forego their unique and paramount function of judicial review of unconstitutionality. . . . [T]he courts say to the plaintiff in effect: 'Although you may indeed be aggrieved by an action of the government, although the action may indeed do violence to the Constitution, it involves a political question which is not justiciable, not given to us to review[]'"); 13A C. Wright, A. Miller & E. Cooper, *Federal Practice and Procedure* § 3534, at 456-59 (2d ed. 1984). Even decisional authority relied upon by the appellants underscores the illogic of their position. *Goldwater v. Carter*, 446 U.S. 996, 1006 (1979) (Rehnquist, J., concurring) ("[s]ince the political nature of the questions presented should have precluded the lower courts from considering or deciding the merits of the controversy, the prior proceedings in the federal courts must be vacated, and the complaint dismissed"); *United States v. Mandel*, 914 F.2d 1215, 1222 (9th Cir. 1990) ("Although the basis in fact inquiry is the narrowest form of judicial review, . . . it is nevertheless a review of the merits of the Secretary's decision. . . . Even that level of review carries with it the possibility that the court might reverse the Secretary's determination in a particular case"); *McIntyre v. McCloskey*, 766 F.2d 1078, 1081 (7th Cir. 1985) ("[b]ecause

the dispute is not justiciable, it is inappropriate for a federal court even to intimate how Congress ought to have decided").

The appellants' position, moreover, renders this matter strikingly similar to *Powell v. McCormack*, 395 U.S. 486 (1969). There, the substantive issue was the propriety of the House of Representatives' refusal to seat Adam Clayton Powell in the 90th Congress despite his admitted possession of the standing qualifications specified in Article I, section 2, clause 2. The congressional defendants contended that, by virtue of the House's power under Article I, section 5 to "be the Judge of the . . . Qualifications of its own Members," the determination not to seat Powell was nonjusticiable. The Court prefaced its analysis of the political question issue with a recognition that such issue's resolution turned on the meaning of the term "Qualifications" in Article I, section 5:

If examination of § 5 disclosed that the Constitution gives the House judicially unreviewable power to set qualifications for membership and to judge whether prospective members meet those qualifications, further review of the House determination might well be barred by the political question doctrine. On the other hand, if the Constitution gives the House power to judge only whether elected members possess the three standing qualifications set forth in the Constitution, further consideration would be necessary to determine whether any of the other formulations of the political question doctrine are "inextricable from the case at bar."

Id. at 520-21. Once the constitutional interpretation issue and the inapplicability of the remaining *Baker* factors were resolved in Powell's favor, he necessarily prevailed on the merits of his claim. *Id.* at 550. Thus, while the Court's analysis of the textual commitment factor was

nominally directed to the existence *vel non* of a political question, in actuality it determined the controversy's merits.

Here, the parties disagree over the proper construction of the phrase "according to their respective Numbers" in Article I, section 2, clause 3. If the appellants prevail on the theory that such phrase allows Congress to use any population-based apportionment formula, the choice of a particular formula becomes a matter of congressional discretion. Conversely, if the lower court's and Montana's construction is accepted, that phrase imposes an obligation on Congress to apportion in a manner which, to the greatest extent possible, minimizes the absolute population disparity between congressional districts. Irrespective of the construction adopted by this Court, since the appellants agree that such requirement may be enforced judicially, their political question defense demands that the merits of Montana's claim be resolved.

B. Inapplicability of the Remaining *Baker* Factors.

The appellants additionally urge that the other *Baker* factors counsel the presence of a nonjusticiable controversy. Reliance on *Baker's* non-textual commitment factors, however, irreconcilably conflicts with their concession that courts do have the authority to determine whether, in apportioning Representatives, Congress has complied with the requirements of Article I, section 2, clause 3.²¹ Even if the inherent inconsistency of the

²¹ In *Powell*, unlike here, the congressional defendants did not concede that courts possessed authority to adjudicate alleged violations of Article I, section 5 under any circumstances; i.e., no judicial review was admitted as available to an

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appellants' position is disregarded, none of the other *Baker* formulations warrants finding Montana's challenge to the equal proportions apportionment formula nonjusticiable.

To suggest that "a lack of judicially discoverable and manageable standards" exists to resolve Montana's claim or that such resolution is impossible "without an initial policy determination of a kind clearly for nonjudicial discretion" (Appellants' Br. at 30) simply ignores the facts. As the appellants themselves painstakingly develop, each of the accepted divisor methods has mathematical qualities which best achieve one or more "measures of equity." (*Id.* at 12-13.) The Dean method is recognized as minimizing the absolute difference in average district sizes – the number of persons per Representative – while the equal proportions method minimizes the relative difference between the number of persons per Representative and the relative difference between the share of each person in a Representative. (Mot. to Aff. at App. 12-App. 13) (Tiahrt Aff. ¶¶ 4, 5); 1 J.A. at 24 (Ernst Decl. ¶ 13). No dispute exists over the relationship between the formulae and the various measures of equity; the issue is whether, as Montana contends, Article I, section 2 requires Congress to ensure that the population of congressional districts is as close as possible in absolute terms. This matter accordingly presents a question which, far from being so exotic as to defy a court's competence to resolve, entails exercise of the most basic

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individual alleged to have been wrongfully deprived of House membership regardless of the meritoriousness of his claim. It was thus necessary there to consider applicability of the other *Baker* factors.

form of decisionmaking by the federal judiciary: constitutional interpretation. Cf. *United States v. Munoz-Flores*, 110 S. Ct. 1964, 1971 (1990) (“[t]o be sure the courts must develop standards for making the revenue and origination determinations, but the Government suggests no reason that developing such standards will be more difficult in this context than in any other”); *Davis v. Bandemer*, 478 U.S. 109, 123 (1986) (“The mere fact . . . that we may not now . . . perceive a likely arithmetic presumption in the instant context [of alleged political gerrymandering] does not compel the conclusion that the claims presented here are nonjusticiable. The one person, one vote principle had not yet been developed when *Baker* was decided. . . . [T]he Court contemplated simply that legislative line drawing in the districting context would be susceptible of adjudication under the applicable constitutional criteria”).²²

²² Curiously, the appellants cite *Japan Whaling Ass'n v. American Cetacean Society*, 478 U.S. 221 (1986), for the notion that the third *Baker* factor applies here. (Appellants' Br. at 30.) In *Japan Whaling*, however, the Court explicitly reaffirmed the role of courts in construing constitutional and statutory provisions. *Id.* at 230 (“As *Baker* plainly held, . . . the courts have the authority to construe treaties and executive agreements, and it goes without saying that interpreting congressional legislation is a recurring and accepted task for the federal courts. It is also evident that the challenge to the Secretary's decision not to certify Japan for harvesting in excess of [international] quotas presents a purely legal question of statutory interpretation. The Court must first determine the nature and scope of the duty imposed upon the Secretary by the Amendments, a decision which calls for applying no more than the traditional rules of statutory construction, and then applying this analysis to the particular set of facts presented below”). To argue, as the appellants do, that the failure of the Constitution “to single out” one of the various measures of equity as controlling

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Resolution of Montana's challenge to use of the equal proportions method also does not implicate the fourth *Baker* factor – “the impossibility of a court's undertaking independent resolution without expressing lack of the respect due coordinate branches of government[.]” In *Munoz-Flores*, the validity of a federal statute requiring a “special assessment” to be imposed upon conviction for certain crimes was alleged to violate the Origination Clause in Article I, section 7, clause 1. The United States argued that resolution of such claim would evince disrespect for the House of Representatives, since the House by approving the bill implicitly concluded no Origination Clause flaw existed, and was therefore a political question. The Court rejected the government's position, accepting that the United States may “be right that a judicial finding that Congress has passed an unconstitutional law might in some sense be said to entail a ‘lack of respect’ for Congress’ judgment” but adding immediately that, were the disrespect referred to in *Baker* intended to include mere disagreement over a law's validity, “every

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means that *any* of them is acceptable and that Congress's “initial policy determination” may not be reviewed is to assume precisely what is at issue – the proper interpretation of Article I, section 2 with respect to Congress's House apportionment responsibility. The appellants' reliance on *Burns v. Richardson*, 384 U.S. 73, 92 (1966), for the applicability of this *Baker* factor is no less misplaced. In *Burns*, a state reapportionment case, the Court was careful to point out that reapportionment choices do not offend the Constitution “[u]nless a choice is one the Constitution forbids.” *Id.* In support of this principle, the Court cited *Carrington v. Rash*, 380 U.S. 89 (1964), which held that a choice which deprives persons of an “equal opportunity for political representation,” 380 U.S. at 94, is a choice the Constitution forbids.

challenge to a congressional enactment would be impermissible." 110 S. Ct. at 1698 (emphasis in original). Nothing in the text of Article I, section 2 warrants a different result here. That provision contains a grant of authority but, by use of the phrase "according to their respective Numbers," also imposes a limitation on such power. The precise nature and scope of the limitation lie at the core of Montana's claim. See, e.g., *United States v. Nixon*, 418 U.S. 683, 703 (1974) ("In the performance of assigned constitutional duties each branch of the Government must initially interpret the Constitution, and the interpretation of its powers by any branch is due great respect from the others. . . . Many decisions of this Court, however, have unequivocally reaffirmed the holding of *Marbury v. Madison*, 1 Cranch 137, 2 L. Ed. 60 (1803), that '[i]t is emphatically the province of the judicial department to say what the law is[]'"); *Powell*, 395 U.S. at 549 ("Our system of government requires that federal courts on occasion interpret the Constitution in a manner at variance with the construction given the document by another branch. The alleged conflict that such an adjudication may cause cannot justify the courts' avoiding their constitutional responsibility").²³

²³ Although not included as part of their analysis of the fourth *Baker* factor's applicability, the appellants make a related argument in connection with distinguishing *Baker* because here, unlike there, "[a]ppellees seek review of Congress's apportionment of Representatives among the States . . . [and their claim] goes to the heart of the separation of powers and the 'relationship between the judiciary and the coordinate Branches of the Federal Government.'" (Appellants' Br. at 24; emphasis in original.) Were this distinction pursued to its natural conclusion, essentially all of the political question analysis in *Baker* would have been unnecessary since that decision involved malapportionment of a state legislature.

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Lastly, the fifth and sixth *Baker* factors do not support the appellants' nonjusticiability claim. The apportionment of House districts, whether on the federal or state level, is necessarily a task undertaken within significant time constraints, but none of the Court's decisions has ever intimated that such constraints, standing alone, are an appropriate basis upon which to find "an unusual need for unquestioning adherence to a political decision already made[.]" Such need has instead arisen "most of the time, if not always, in the area of foreign affairs." *County of Oneida v. Oneida Indian Nation*, 470 U.S. 226, 250 (1985). The Court accordingly stated in *Baker* that many foreign relations questions "uniquely demand single-

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More telling, though, is the fact that, even prior to *Baker*, the Court had found congressional apportionment cases justiciable. See *Wesberry v. Sanders*, 376 U.S. 1, 6-7 (1964) (summarizing cases); *Baker*, 369 U.S. at 232-33 (same). In so holding, the Court rejected the contention, perhaps most fully developed by Justice Frankfurter's plurality opinion in *Colegrove v. Green*, 328 U.S. 549 (1946), that Congress possesses exclusive authority to resolve disputes over apportionment of Representatives. Neither *Baker* nor the other cases suggest that Justice Frankfurter's analysis concerning the power of Congress to remedy congressional district malapportionments was faulty; rather, they concluded that congressional authority in this area did not preclude the exercise of judicial power. The appellants also identify no reason why the right to a nondiluted vote in congressional elections, which was said in *Wesberry* to be "too important in our free society to be stripped of judicial protection" where state legislative action was involved (376 U.S. at 7), should be any less deserving of judicial vindication when the malapportionment is effected by Congress. In sum, the separation-of-powers distinction proffered by the appellants has no analytical significance independent of the fourth *Baker* factor which, for those reasons discussed above, does not warrant invoking the political question doctrine.

voiced statement of the Government's views." 369 U.S. at 211. In the analogous area of hostilities duration, "[d]ominant is the need for finality in the political determination, for emergency's nature demands 'A prompt and unhesitating obedience[.]'" *Id.* at 213. The specter of "embarrassment from multifarious pronouncements by various departments on one question" is equally chimerical since, once the merits of Montana's claim are addressed, the meaning of the phrase "according to their respective Numbers" presumably will be settled. See *Chadha*, 462 U.S. at 942 (stating that resolution of a challenge to the constitutionality of a congressional veto provision was "for the Court to resolve" and that, upon such resolution, "there is no possibility of 'multifarious pronouncements' on this question").²⁴

²⁴ The appellants argue that an as-yet-unissued decision in *Massachusetts v. Mosbacher*, Civ. No. 91-11234-WD (D. Mass.), may "create irreconcilable demands upon a fixed number of representatives" and lead to a "judicially driven Balkanization process[.]" (Appellants' Br. at 33.) It is nonetheless unclear how these purported demands will occur. If the appellants' position on the merits is accepted, the Commonwealth of Massachusetts will stand in no better position than Montana; if Montana's position prevails, Massachusetts' reliance on the Webster method and, implicitly, the measure of equity associated with that method - minimizing the absolute difference between any two states with respect to a person's share of a Representative - must be deemed unfounded. Were the Court to reject both the appellants' and Montana's positions on the merits, its decision almost certainly would provide sufficient guidance for determination of Massachusetts' claim. Similarly unhelpful to their political question analysis is the appellants' discussion of supposed difficulties in formulating appropriate relief. (Appellants' Br. at 31-32.) The relief issue, discussed below at pages 47-50, does not implicate the "multifarious pronouncements" factor since, again, multiple conflicting resolutions of

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II. ARTICLE I, SECTION 2 OF THE CONSTITUTION SECURES THE RIGHT OF THE PEOPLE TO EQUAL REPRESENTATION IN THE HOUSE OF REPRESENTATIVES.

A. The Historical Development of Article I, Section 2 Supports the District Court's Holding that Population Equality Is the Fundamental Goal of the House of Representatives.

Drawing from the debates of the Constitutional Convention, the District Court concluded that "Article I, section 2, imposes upon Congress the same duty to 'meet the standard of equal representation for equal numbers of people as nearly as is practicable,' . . . when apportioning Congressional districts that it imposes upon state legislatures." (J.S. at 12a.) Vital to the court's holding was its observation that the debates of 1787 "centered on the issue of how seats should be apportioned to states, not on how state legislatures should draw districts within states." (*Id.* at 10a.)

The appellants argue that this "unprecedented" ruling is undercut by the historical basis upon which reapportionment of the House of Representatives has been effected by Congress and ignores the broad discretion with which Congress is vested under the Constitution. (Appellants' Br. at 22, 34.) Rather than attempting to circumscribe Congress's duties in apportioning membership of the House, the appellants suggest, the delegates to the Constitutional Convention were more concerned with the "larger issue" of the overall composition of the Legislative Branch. *Id.*

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the apportionment issue are highly unlikely among the courts and even less likely between the "various departments" of the federal government.

There was, however, no larger issue before the Convention than the basis of membership in the National Legislature.²⁵ The Great Compromise, which saved the Convention from irreconcilable dissension, was made possible by the guarantee that membership in the first branch of the legislative body would be determined by numbers of inhabitants in the States, while States would be secured an equal voice in the Senate. Equal representation for equal numbers of people became the *raison d'être* of the House of Representatives. James Wilson, admonishing the delegates that "Waters of Bitterness have flowed from unequal Representation,"²⁶ reminded them that they were forming a government for *individuals*, not for "the imaginary beings called *States*." 1 *Farrand* at 483.

When the committee appointed to consider the issue of representation recommended that membership in the first house be based upon a ratio of one for every 40,000 inhabitants, the committee resolved that "the 1st. branch would be the immediate representatives of the people, the 2d. would not." 1 *Farrand* at 544 (Mason). In the days preceding the Great Compromise, Madison pointed out: "Representation was an expedient by which the meeting of the people themselves was rendered unnecessary; and

²⁵ Charles Pinckney, during the 1788 ratification debates in the South Carolina Legislature, said: "After much anxious discussion, - for, had the Convention separated without determining upon a plan, it would have been on this point, - a compromise was effected, by which it was determined that the first branch be so chosen as to represent in due proportion the people of the Union; that the Senate should be the representatives of the states, where each should have an equal weight." 3 *Farrand* at 249.

²⁶ J. Hutson, *Supplement to Max Farrand's The Records of the Federal Convention of 1787* at 133 (1987).

that the representatives ought therefore to bear a proportion to the votes which their constituents if convened, would respectively have." 2 *Farrand* at 8.²⁷

The debates of the federal convention belie appellants' claim that the Framers intended Congress to have essentially unbridled discretion in determining the composition of the House. On the contrary, the delegates feared that, once vested with authority, those in control of Congress would guard it jealously and fail to readjust the balance of power unless directed by the express mandate of the Constitution to do so. Delegate Sherman cautioned that "the *periods* & the *rule* of revising the Representation ought to be fixt by the Constitution." 1 *Farrand* at 582. Concurring, Mason argued that the Convention should not require of the Legislature "something too indefinite & impracticable, and leaving them a pretext for doing nothing." *Id.*; see also *supra* at 6-7. In the end, the delegates virtually were in unanimous agreement that express direction be given to the Congress to enumerate the population on a periodic basis and to "arrange the representation accordingly." 1 *Farrand* at 588-89.

The history of the first apportionment bill reflects the same expectation that Representatives have equally-populated constituencies. See *supra* at 11-13. Indeed,

²⁷ The records of the Constitutional Convention show that appellants' contention that the Framers intended to disregard all "fractions" is misplaced. (Appellants' Br. at 34 n.28.) In context, the quoted statements regarding "fractions" relate either to the discussion of slaves - and whether they should be counted as "fractions" of a person to determine representation (1 *Farrand* at 559-62) - or to a discussion of the apportionment of taxes until such time as a census had been taken (*id.* at 600-03; 2 *id.* at 357-58). Consequently, for purposes of the issue under consideration, no significance should be attributed to these comments.

President Washington was compelled to veto the measure because it did not uniformly apply a ratio of persons per Representative to each of the States. Notably, the fractions "smaller than the common ratio" to which Jefferson referred in his memorandum to the President were those segments of a State's population which contained less than 30,000 people and for which, by the express terms of the Constitution, a Representative could not be allotted. H.R. Doc. No. 234 at 6. Violation of this ratio in contravention of the Constitution was ground for Washington's veto. 3 Annals of Cong. 539 (1792).

Above all other considerations, the records of the Second Congress reflect an overriding concern for equality, "as nearly as may be," in the numbers of persons in each district. *Id.* at 246 (Rep. Niles) (emphasis in original). See *supra* at 10-13. Members of the House recognized that, notwithstanding the impossibility of obtaining precise equality, their inability to "do complete justice" did not justify them in failing to do justice "to any degree whatever." *Id.* at 273 (Rep. Kittera). Ultimately, they agreed upon a ratio of one Representative for every 33,000 persons, which brought about the least amount of inequity between district populations and complied with the Constitutional ratio. See *supra* at 10-11, 13. This is the "contemporaneous and weighty evidence of [the] true meaning" of Article I, section 2, to which the Court should ascribe significance. *Marsh v. Chambers*, 463 U.S. 783, 790 (1983).

B. Clause 1 and Clause 3 of Article I, Section 2 Must Be Construed in Harmony and Consistent With Precedent Establishing the "One Person, One Vote" Standard.

"Article I, § 2, establishes a 'high standard of justice and common sense' for the apportionment of congressional districts: 'equal representation for equal numbers

of people.' " *Karcher v. Daggett*, 462 U.S. 725, 730 (1983) (quoting *Wesberry v. Sanders*, 376 U.S. 1, 18 (1964)). The "one person, one vote" standard enunciated by this Court in *Wesberry* requires that, to the greatest extent practicable, Congressional districts must have equal populations. 376 U.S. at 7-8. "Equal representation for equal numbers of people is a principle designed to prevent debasement of voting power and diminution of access to elected representatives. . . . Therefore, the command of Art. I § 2, . . . permits only the limited population variances which are unavoidable despite a good-faith effort to achieve absolute equality, or for which justification is shown." *Kirkpatrick v. Preisler*, 394 U.S. 526, 531 (1969).

The appellants argue that the "one person, one vote" standard applicable to the redrawing of congressional districts within State boundaries is inapplicable to the apportionment of Representatives among the States because the standard was drawn from clause 1 of Article I, section 2, requiring that Representatives be chosen "by the people of the several States." (Appellants' Br. at 44-45.) They maintain that "Clause 3 does not mention the 'People' of the several States - and therefore does not suggest that it confers on the People of a State any personal rights with respect to the apportionment of Representatives by Congress." (*Id.* at 45.) Thus, since clause 3 provides for apportionment of Representatives to the States themselves,²⁸ the appellants reason, the District Court's application of the principles of *Wesberry* was without textual basis. *Id.*

The appellants' argument stands Article I, section 2 on its head. "Every provision in a constitution must be interpreted in the light of the entire document[,] . . . and

²⁸ This is a surprising argument, in view of the appellants' position below that the State of Montana lacked standing to bring the instant action. See R. 19 at 46-47.

all constitutional provisions are of equal dignity and, if possible, should be construed in harmony with each other." *Tom v. Sutton*, 533 F.2d 1101, 1105-06 (9th Cir. 1976) (citing *Richardson v. Ramirez*, 418 U.S. 24 (1974), and *Ullman v. United States*, 350 U.S. 422 (1956)). Clause 1 and clause 3 cannot be artificially isolated and interpreted independently of each other. Both grew out of a preeminent concern of the Framers that the *people* of the Nation be the foundation of the House of Representatives, so that it in turn would be the "grand depository of the democratic principle of the Govt." 1 *Farrand* at 48.

As this Court observed in *Wesberry*, "[t]he debates at the Convention make at least one fact abundantly clear: that when the delegates agreed that the House should represent 'people' they intended that in allocating Congressmen the number assigned to *each State* should be determined *solely* by the number of the State's inhabitants." 376 U.S. at 13 (emphasis added). Indeed, the underlying rationale for the strict rule laid down in *Wesberry* was the Court's concern that the "principle solemnly embodied in the Great Compromise – equal representation in the House for equal numbers of people – " would be undermined if the Court allowed States to give some voters a greater voice than others in choosing a Congressman. *Id.* at 14.

Many of the passages quoted in *Wesberry* were taken from the debates concerning the basis of representation in the House of Representatives. 376 U.S. at 13-16. Review of the records of the Convention shows clearly that election by the people went hand in hand with the notion of equal representation. *See supra* at 3-5. Randolph observed that the existing Congress created by the Articles of Confederation had engendered dissatisfaction among the people, for the reason that, "inadequate as Congress are in point of representation, elected in the mode in which they are,

and possessing no more confidence than they do," the Congress was ill-equipped to provide for "harmony among the States." 1 *Farrand* at 256. The Framers were vigilant to avoid a system of boroughs, such as that in England, which would allow a minority to govern. *See id.* at 449-50 (Wilson), 584 (Madison). Thus, "numbers were surely the natural & precise measure of Representation." *Id.* at 605 (Wilson).

Justice Black, dissenting in *Colegrove v. Green*, 328 U.S. 549 (1946), observed that the purpose of apportionment "among the several States according to their respective numbers" is "obvious: It is to make the votes of the citizens of the several States equally effective in the selection of members of Congress. It was intended to make illegal a nation-wide 'rotten borough' system *as between the States*." 328 U.S. at 570 (emphasis added). Emphasizing that "the policy laid down in the Constitution [is] that, so far as feasible, votes be given equally effective weight," Justice Black argued that "legislation which must inevitably bring about glaringly unequal representation in the Congress in favor of special classes and groups should be invalidated, 'whether accomplished ingeniously or ingenuously.'" *Id.* at 571 (citations omitted).

Neither its historical context nor the language of the Constitution itself supports the narrow and twisted reading of Article I, section 2 that the appellants advocate. Clause 1 and clause 3, construed – as they must be – in harmony with each other and in such a way as to give equal dignity to both, require that apportionment "among the several States" be governed by the standard of equal representation for equal numbers of people intended by the Framers to dictate the composition of the House of Representatives. As the District Court concluded:

The rationale underlying the *Wesberry* opinion actually has more relevance to the national

apportionment issue than to intrastate redistricting. In essence, the Supreme Court simply precluded any state from indirectly violating the national standard of "equal representation for equal numbers of people" through its intrastate redistricting actions[.]

(J.S. at 10a.)²⁹ Painstaking precision in the drawing of Congressional district boundaries within the States is hollow indeed if apportionment at the national level is poisoned. "[I]t would be incongruous to interpret [Article I, section 2] as imposing more stringent . . . limits on the states than the draftsmen imposed on the Federal Government." *Marsh*, 463 U.S. at 790-91. Article I, section 2 commands the apportionment of Representatives among the States to achieve, as nearly as is practicable, equal representation for equal numbers of people.³⁰

²⁹ All three judges agreed that the *Wesberry/Karcher* analysis is applicable to the nationwide apportionment issue. (J.S. at 22a-23a) (O'Scannlain, J., concurring and dissenting).

³⁰ Nothing in the enactment of the Fourteenth Amendment changes the interpretation to be given Article I, section 2. Authorities cited by the appellants in support of their argument that the Fourteenth Amendment somehow incorporated the prior practice of Congress are inapposite. See, e.g., *Merrill, Lynch, Pierce, Fenner & Smith v. Curran*, 456 U.S. 353, 378-82 (1983) (reenactment of statutes where "contemporary legal context" had been established by prior court decisions is evidence that Congress intended to incorporate court decisions). Conversely, "[i]n the use of congressional legislation to support or change a particular construction of the Constitution by acquiescence, its weight for the purpose must depend not only upon the nature of the question, but also upon the attitude of the executive and judicial branches of the government, as well as upon the number of instances in the execution of the law in which opportunity for objection in the courts or elsewhere is afforded. When instances which actually involve the question are rare or have not in fact occurred, the weight of the mere

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III. 2 U.S.C. § 2a(a) VIOLATES THE PRINCIPLE OF EQUAL REPRESENTATION FOR EQUAL NUMBERS OF PEOPLE AND HAS DEPRIVED APPELLEES OF THEIR RIGHT TO AN EQUAL VOICE IN THE HOUSE OF REPRESENTATIVES.

A. The District Court Did Not Err in Finding That Montana Satisfied Its Burden of Showing That Disparities in District Population Under the Present Apportionment Are Not Unavoidable.

Under the analysis of *Wesberry* and *Karcher*, Montana bore the initial burden of demonstrating that the population differences among districts could have been reduced or eliminated by a good-faith effort to draw districts of

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presence of acts on the statute book for a considerable time as showing general acquiescence in the legislative assertion of a questioned power is minimized." *Myers v. United States*, 272 U.S. 52, 170, 171 (1926). Further, "historical patterns [alone] cannot justify contemporary violations of constitutional guarantees." *Marsh*, 463 U.S. at 790. Since enactment of the Fourteenth Amendment preceded *Wesberry* and other landmark reapportionment decisions by nearly 100 years, there is no "contemporary legal context" by which to gauge Congressional intent. As discussed *supra* at 27-30, construction of Article I, section 2, to require that congressional districts be of equal population to the extent practicable is supported both by the debates of the Constitutional Convention and by the discussions held in the Second Congress when debating the first reapportionment bill. An historical review reveals that, in enacting section 2 of the Fourteenth Amendment, Congress was predominantly concerned with the enforcement language regarding suffrage rights of blacks, and that little consideration was given to the wording of the first clause. 11 H. Ames, *supra*, at 51-52. Accordingly, the context in which the Fourteenth Amendment was adopted sheds little light on the interpretation of the language at issue herein.

equal population. Once that showing was made, the burden shifted to the appellants to prove "that each significant variance between districts was necessary to achieve some legitimate goal." *Karcher*, 462 U.S. at 730-31. Population equality between districts is "the preeminent, if not the sole, criterion" by which constitutionality of the apportionment is to be judged. *Chapman v. Meier*, 420 U.S. 1, 23 (1975). Thus, the salient fact examined by the District Court was the variation in population between congressional districts and comparison of those districts with the ideal district size. (J.S. at 13a-15a.)

Despite the appellants' exhaustive review of the various mathematical methods available to determine reapportionment, this case does not require intimate scrutiny of mathematical formulae or an examination of which formula produces the least amount of bias between large and small States.³¹ Nor does the case require the Court to choose between mathematical formulae that all achieve some measure of equity and to impose that choice upon Congress. Rather, this case presents the *legal* issue, as discussed above, whether Congress is to be governed by the standards this Court has held applicable to apportionment of congressional districts. If the Court finds such standards applicable, it must further find, in order for Montana to prevail, that the District Court did not err in concluding that appellees have shown disparity in the

³¹ Indeed, if absence of mathematical "bias" between "large" and "small" States is the test by which apportionment is to be measured, recent studies indicate that the Hill method does not in fact enjoy superiority. See M. Balinski & H.P. Young, *Fair Representation: Meeting the Ideal of One Man, One Vote* 73-77 (1982). Under this Court's reapportionment jurisprudence, however, the test is not to compare arbitrarily defined "groups" of states, but to compare the population of each district to the ideal district size.

size of Congressional districts that could have been reduced by use of a different reapportionment scheme. The mathematics of the issue are valuable only to show whether and how the disparities between district population can be diminished, and which apportionment scheme best satisfies the standards applicable to apportionment of congressional districts.

There is no dispute that the method of harmonic means (Dean method) "is optimal with respect to the absolute difference between the numbers of persons per representative." (I J.A. at 24 (Ernst Decl. ¶ 12).) Thus, "the minimum absolute difference in the average population per district is achieved by the method of harmonic mean." L. Schmeckebier, *Congressional Apportionment* 18 (1941); see also M. Balinski & H.P. Young, *supra*, at 49; Appellants' Br. at 9a (1948 National Academy of Sciences Report). The method of equal proportions (Hill method), in contrast, achieves the "minimum *relative* difference per share in a representative and [the minimum *relative* difference] in the average population per district." L. Schmeckebier, *supra*, at 18 (emphasis added).³² Montana

³² Mathematicians engaged in study of the apportionment problem have, over the years, devised various measures of "equity" which are reflected in the different apportionment methods. Although there has been disagreement between them as to which method produces the most mathematically equitable apportionment, the mathematicians all have shared one common trait: they have analyzed the problem as a mathematical one, rather than as a constitutional one. As discussed *supra* at 27-34, Article I, section 2 imposes a standard of population equality among congressional districts. Examining a person's share in a Representative requires employment of an artificial standard because it is measured by determining the number of Representative *per million people*. Schmeckebier, *The Method of Equal Proportions*, 17 Law & Contemp. Probs. 302 (1952). It is

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demonstrated before the District Court that application of the Dean method to the 1990 census figures to determine apportionment of Representatives among the States would in fact have produced less disparity between the population of congressional districts. (II J.A. at 68 (Hill Aff. Ex. G).)

First, comparing the States of Montana and Washington³³ to the ideal district size, Montana's single congressional district under the Hill method, with a population of 803,655, exceeds the ideal district size of 572,466 by 231,189 persons.³⁴ In contrast, under the Dean method Montana's congressional districts, each with a population of 401,828, would differ from the ideal by 170,638 persons. Washington's nine districts under the Hill method, each with a population of 543,105, would contain 29,361 fewer persons than the ideal district. Applying the Dean method, Washington's eight districts each would have a population of 610,993, exceeding the ideal by 38,527. Under the Hill method the difference between the average size of Montana and Washington congressional districts is 260,550 persons, while under the Dean method the difference is 209,165 persons. A necessary corollary to

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not, then, simply the reciprocal of the number of persons per Representative and is not an accurate device for obtaining equal representation for equal numbers of people, as that standard has been applied in apportionment cases. Likewise, apportionment should not be calculated solely by reference to a state's "quota," which does not take into account the number of persons per Representative.

³³ These are the only two States for which application of the Dean method brings about a different result than that effected by the method of equal proportions. (II J.A. at 68 (Hill Aff. Ex. G).)

³⁴ See Mot. to Aff. at App. 13-App. 14 (Tiahrt Aff. ¶¶ 7-11).

the reduction of the difference in average district size is the creation under the Dean method of congressional districts more closely approximating the ideal size of 572,466 persons. Second, as illustrated by the graph appended to the affidavit of Montana's principal expert (Mot. to Aff. at App. 21 (Tiahrt Aff. Ex. B)), application of the Dean method reduces not only the absolute population disparity between the average congressional districts in Montana and Washington but also the range of disparity among *all* congressional districts grouped by State average.³⁵

The appellants rely upon the partial dissent of Judge O'Scannlain in support of their argument that the method

³⁵ Application of the Adams method, which has also been called the method of smallest divisors and the method of included fractions, results in the minimum range between the largest and smallest districts under 1990 census figures. (Mot. to Aff. at App. 21 (Tiahrt Aff. Ex. B).) The Adams method minimizes the overrepresentation of any state, i.e., results in the smallest absolute "representation surplus." (*Id.* at App. 13 (Tiahrt Aff. ¶ 6)); see L. Schmeckebier, *Congressional Apportionment*, at 40-49. Professor Walter Willcox, who was the author of the method of major fractions used in the 1930 apportionment (Appellants' Br. at 6a), later became an advocate of the Adams method for the reason that it "secure[s] the closest possible approach to equality in the population of Congressional districts." Willcox, *The Apportionment Problem and the Size of the House: A Return to Webster*, 35 Cornell L.Q. 367, 388 (1950). Willcox contended that, since the Adams method "apportions representatives one after another to the state which then has the largest district population," it is the optimal method for equalizing the district populations of the several States. *Id.* at 389; see also Willcox, *Last Words on the Apportionment Problem*, 17 Law & Contemp. Probs. 290, 300 (1952). While the Adams method minimizes the size of the largest district (Mot. to Aff. at App. 21 (Tiahrt Aff. Ex. B)), the Dean method brings each district closer to the ideal size in absolute terms. See M. Balinski & H.P. Young, *supra*, at 49.

of equal proportions "minimizes the total variance of the 435 congressional districts in the Nation from the ideal (nationwide average) district size" (Appellant's Br. at 42), as well as the "sum of the absolute deviations from the ideal district size" (*id.* at 42 n.38). Aggregation of the differences between all congressional districts and the ideal district size, however, shows nothing because it may, and under 1990 census figures does, mask the fact that not every district is brought as nearly as practicable to the ideal and because the one person, one vote standard is satisfied only if *Representatives* are apportioned in such a manner as to ensure that the population of *each* district approaches the ideal size. Aggregation of the district populations within each state, therefore, produces misleading results, since it does not reflect the actual number of persons per Representative. The Framers clearly understood that State boundaries posed a practical limitation on the feasibility of establishing equally-populated congressional districts, but they just as clearly intended that Representatives be apportioned among the States so that each represented, as much as possible, the same number of persons.

Equally misplaced is the appellants' reliance upon "mathematical variance." Mathematicians sometimes speak of "variance" in describing dispersion of data around a particular point. When used with respect to congressional districts, variance in this sense is the sum of the squares of the deviations by each charted district from the ideal district size divided by one less than the number of districts charted (I J.A. at 29 (Ernst Decl. ¶ 23)) – not "the sum of the squares of the deviations by each district from the ideal district size" (Appellants' Br. at 42 n.38). The terms "variance" and "deviation," however, have been used by the courts in reapportionment cases to define *absolute differences in population* between actual

congressional districts and the ideal district. *See, e.g., Karcher*, 462 U.S. at 728-29; *Kirkpatrick*, 394 U.S. at 529-31; *White v. Weiser*, 412 U.S. 783, 785 (1973); *Doulin v. White*, 528 F. Supp. 1323, 1324, 1329 (E.D. Ark. 1982). Comparison of absolute differences in district populations is a simple process of subtraction, one in which the courts have engaged throughout their analysis of reapportionment cases. Examining the entire apportionment plan, the relevant inquiry requires calculating the overall disparity between district populations. *See, e.g., Kirkpatrick*, 394 U.S. at 528-29 (districts which varied from ideal by a range of 12,260 persons below it to 13,542 above it, representing a percentage difference ranging from 3.13 percent above ideal to 2.84 percent below ideal, constituted unacceptable population deviations).

The appellants have at no time suggested that the method of equal proportions can produce less disparity in absolute numbers of persons per representative than that produced by the Dean method. They do not disagree that application of the Dean method to the 1990 Census data would in fact produce less population disparity in congressional districts from the ideal district size. The numbers "reflect real differences among the districts" which could have been reduced by a good-faith effort to achieve population equality. *Karcher*, 462 U.S. at 738.³⁶

³⁶ Two other ill-conceived arguments by the appellants warrant brief mention. They erroneously compare the results of two different apportionment schemes in arguing that the deviation is only 8.7 percent from the ideal district size (Appellants' Br. at 47), when in fact the pertinent inquiry is to compare actual district sizes to the ideal under a given apportionment scheme. Applying the Hill method to the 1990 census figures results in a total population disparity

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B. Appellants Have Not Shown That the Disparities in Congressional District Population Are Justified.

The appellants argue that the Court should uphold the constitutionality of 2 U.S.C. § 2a(a) because the method of equal proportions is "rationally tied" to the population of the several States and therefore Congress's judgment should not be disturbed. Further, the appellants claim, given the population differences among the States, any apportionment method will result in large disparities between districts and therefore no method should be constitutionally preferred over another. (Appellants' Br. at 46-48.)

The District Court rejected the appellants' argument that mathematical impossibility is an excuse for failure to

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between the largest and smallest congressional district of 347,680, representing a range amounting to 61 percent from the ideal district size. (Mot. to Aff. at App. 14) (Tiahrt Aff. ¶ 11.) That range is reduced to 52 percent under the Dean method and to 50 percent under the Adams method. (*Id.*)

The appellants also erroneously rely upon case law involving *state legislative redistricting* in arguing that the disparity is insufficient to trigger further scrutiny. (Appellants' Br. at 47.) Redistricting of state legislatures is analyzed under the Equal Protection Clause of the Fourteenth Amendment, not under Article I, section 2. See *Reynolds*, 377 U.S. at 567-68. Moreover, even under equal protection principles, the disparities in the present apportionment scheme would fail to pass constitutional muster, since there exists a readily available statistical method for more closely approximating the equal representation goal of the one person, one vote standard and no reason, other than misapprehension of the governing constitutional rule, for not apportioning under such method. Even "[t]he Equal Protection Clause demands no less than substantially equal . . . representation for all citizens, of all places as well as of all races." *Id.* at 568.

strive for the fundamental goal of population equality among districts. (J.S. at 14a n.3, 16a-17a.) Giving little weight to the appellants' argument that the method of equal proportions was the result of studied consideration by Congress,³⁷ the court emphasized that "[p]opulation equality with each district is *the* goal under the Constitution, not *a* goal[.]" (*Id.* at 17a.)

The District Court's observation that "each number represents a person whose voting rights are potentially impacted by the population disparities" (J.S. at 14a n.3) underscores the fallacy in the appellants' approach to this case. They characterize the issue as whether Congress should be permitted broad discretion in matters concerning its own membership. As the District Court recognized, however, what is at stake in this case is the right of a Montana voter to participate on equal footing in the National Legislature with voters of other States. This is a matter "close to the core of our constitutional system." *Carrington v. Rash*, 380 U.S. 89, 96 (1965). This Court has made clear that "at some point or level in size, population variances *do* import invidious devaluation of the individual's vote and represent a failure to accord him fair and effective representation." *White*, 412 U.S. at 792-93 (emphasis in original).

³⁷ The court observed that the debate in 1941 was characterized as a struggle between Michigan and Arkansas for the 435th Representative. (J.S. at 16a n.6.) Under the method of major fractions, Arkansas was slated to lose one of its seven seats in the House, while Michigan was to increase its number of seats from 17 to 18. However, if the method of equal proportions were used, there would be no change in either State's representation. Since the votes ultimately followed party lines, it has thus been suggested that "political expediency had a heavier hand" than mathematical virtue in adoption of the method of equal proportions. M. Balinski & H.P. Young, *supra*, at 71.

It has long been settled that government action will be given strict scrutiny when it impinges on the exercise of fundamental constitutional rights or liberties. *San Antonio Independent School District v. Rodriguez*, 411 U.S. 1, 51 (1973). Among such fundamental rights is the right to vote. Each citizen has a "constitutionally protected right to participate in elections on an equal basis with other citizens in the jurisdiction." *Dunn v. Blumstein*, 405 U.S. 330, 336 (1972). Consequently, infringement of that protected right must be accorded strict scrutiny, and must be shown by the government to be "'necessary to promote a compelling state interest.'" *Id.* at 337 (quoting *Kramer v. Union Free School District No. 15*, 395 U.S. 621, 627 (1969)). "[R]egulation of the electoral process receives unusual scrutiny because 'the right to exercise the franchise in a free and unimpaired manner is preservative of other basic civil and political rights.'" *Plyler v. Doe*, 457 U.S. 202, 233 (1982) (Blackmun, J., concurring) (quoting *Reynolds v. Sims*, 377 U.S. 533, 562 (1964)).

Given the fundamental status enjoyed by the right to participate equally in the electoral process, Congress cannot be held simply to a rationality standard in apportioning Representatives among the States. "Population is, of necessity, the starting point for consideration and the controlling criterion for judgment in legislative apportionment controversies." *Reynolds*, 377 U.S. at 567. Impossibility of achieving precise equality does not lessen the fact that an apportionment alternative is presently available to the Congress which will result in congressional districts whose populations more closely approximate the ideal district size.³⁸

³⁸ "The facts of life do not neatly lend themselves to the niceties of constitutionalism; but neither does the Constitution

(Continued on following page)

Although in implementing the stated purpose of a constitutional provision Congress may select the policy which in its judgment best effectuates the constitutional aim, it still must act "[w]ithin the limits of the constitutional grant." *Graham v. John Deere Co.*, 383 U.S. 1, 6 (1966). Congress may not transgress constitutional restrictions when exercising its plenary authority. *Buckley v. Valeo*, 424 U.S. 1, 132 (1976). This Court has recognized that even "plenary and exclusive power" vested in a coordinate branch of government, "like every other governmental power, must be exercised in subordination to the applicable provisions of the Constitution." *Dames & Moore v. Regan*, 453 U.S. 654, 661 (1981) (quoting *United States v. Curtiss-Wright Export Corp.*, 299 U.S. 304, 319-20 (1936)).

The constitutional constraints applicable to the issue *sub judice* strike at the heart of the notions upon which a democratic government is premised. The Constitution requires that, to the greatest extent practicable, each person's vote in a congressional election be worth as much as another's and, therefore, that each Representative in Congress represent the same number of constituents. When the equality of voting rights has been debased by an apportionment that fails to accord equal representation for equal numbers of people, that apportionment does not measure up to constitutional standards. By adhering to past "considerations of practical politics," *Kirkpatrick*, 394 U.S. at 533, the appellants have failed to show justification for the disparities in district population that have occurred as a result of 2 U.S.C. § 2a(a).

(Continued from previous page)

tolerate any result, however distorted, just because it is the product of a convenient mathematical formula which, in most situations, may produce a tolerable product." *Norfolk & W. Ry. Co. v. Missouri State Tax Comm'n*, 390 U.S. 317, 327 (1968).

IV. WHETHER CONGRESS IS CONSTITUTIONALLY REQUIRED TO ENACT LEGISLATION TO EFFECT REAPPORTIONMENT FOLLOWING THE DECENNIAL CENSUS IS NOT PROPERLY BEFORE THE COURT.

Appellants argue that the district court erred in concluding that the self-executing reapportionment process implemented under 2 U.S.C. § 2a violates the Constitution. (Appellants' Br. at 48-49.) Although Montana raised this issue in its second claim for relief,³⁹ the District Court did not reach it in ruling on the parties' cross-motions for summary judgment. (J.S. at 18a n.9.) To the extent the District Court considered Congress's inaction over the last 50 years, it did so only in the context of discussing the lack of a "good faith" effort to bring about population equality among congressional districts to the greatest extent practicable. (*Id.* at 18a-19a.)

The appellants did not present in their Jurisdictional Statement a question regarding the second claim in the complaint. The questions presented in their brief on the merits also do not include this issue. Montana did not raise the issue in its Motion to Affirm. Pursuant to Sup. Ct. R. 14.1(a) and 18.3, only the questions set forth in the appellants' Jurisdictional Statement are to be considered by the Court. Further, since the District Court expressly declined to consider this issue, the matter should be remanded for consideration by the lower court should this Court rule against appellees on the questions properly presented in the appeal.

³⁹ See Mot. to Aff. at App' 6-App. 7 (Complaint ¶¶ 23-29).

V. THE DISTRICT COURT JUDGMENT UNAMBIGUOUSLY ENJOINS THE APPELLANTS FROM EFFECTING THE 1990 HOUSE APPORTIONMENT IN ACCORDANCE WITH 2 U.S.C. § 2a.

The appellants suggest in their brief, as they did in the Jurisdictional Statement, that the District Court's judgment has no effect for the apportionment predicated on the 1990 decennial census. (Appellants' Br. at 32 n.26; J.S. at 24 n.19.) They reason that, while the District Court declared 2 U.S.C. § 2a unconstitutional and enjoined them from reapportioning the House of Representatives thereunder, the 1990 apportionment has already been effected and cannot now be altered. Their proffered interpretation of the judgment below is implausible.

The District Court declared 2 U.S.C. § 2a unconstitutional and enjoined the appellants "from effecting reapportionment of the House of Representatives" under that provision. (J.S. at 19a.) However parsed, the injunction unambiguously requires the appellants to cease giving effect to the apportionment determination under 2 U.S.C. § 2a(a) predicated on the 1990 census. That the judgment fails to refer specifically to the 1990 apportionment does not mean, as the appellants seemingly believe, that it was intended only to affect the apportionment under the year 2000 census. (J.S. at 25 n.19.) Not only was the District Court's substantive analysis of the merits directed to Montana's claim deriving from the 1990 apportionment (*id.* at 8a), but its determination with respect to the appellees' standing – which the appellants do not contest now – was premised on the former's demonstration of "a substantial likelihood that adoption of an apportionment method which results in the least amount of disparity in district size will also result in the apportionment of two congressional districts to the State of Montana" (*id.* at 45a) under 1990 census figures. The District Court fully

realized what is otherwise obvious: This case was initiated not to resolve an abstract legal issue but to secure appropriate representation for the next decade in the House and the electoral college. (Mot. to Aff. at App. 2, App. 6 (Complaint ¶¶ 5, 22).)

The judgment accordingly fulfills the traditional role of injunctive relief – “forbidding the continuation of a course of conduct” found to be unlawful. 11 C. Wright & A. Miller, *Federal Practice and Procedure* § 2942, at 377 (1973).⁴⁰ The appellants’ interpretation strips the injunctive relief from the factual context giving rise to this litigation and ignores the prejudicial impact which the 1990 apportionment, if carried forward, will have on the voting rights of Montana citizens. The District Court judgment instead places the burden on Congress to enact legislation embodying the constitutionally appropriate formula and providing for apportionment of Representatives under such formula on the basis of the 1990 census.⁴¹

⁴⁰ Although the judgment’s permanent injunction is perfectly capable of being characterized as prohibitory in nature since it orders the appellants to give no further effect to the 1990 apportionment, it conceivably can be viewed also as a mandatory injunction phrased negatively. See generally Klein, *Mandatory Injunctions*, 12 Harv. L. Rev. 95, 98 (1898) (“The form adopted at an early day for [mandatory] injunctions . . . was negative instead of positive. It restrained the defendant from permitting a condition of affairs which he had wrongfully brought about, occasioned or suffered to exist, from continuing any longer”). Whether characterized as prohibitory or mandatory, the injunction precludes the appellants from giving any effect to the President’s 1991 statement transmitted under 2 U.S.C. § 2a(2) or the certificates of entitlement forwarded under 2 U.S.C. § 2a(b).

⁴¹ *Amicus curiae* State of Washington raises the issue whether it is an indispensable party under Fed. R. Civ. P. 19.

(Continued on following page)

Finally, the assertion by *amicus curiae* State of Washington that Montana has not congressionally redistricted in accordance with the District Court’s judgment (Washington Br. at 6) is incorrect. On January 16, 1992, the Governor of Montana signed into law a measure requiring the state’s districting and apportionment commission to reconvene for the purpose of preparing a plan for two congressional districts. Sen. Bill No. 2, 52d Mont. Legis., Special Sess. The bill directs Montana’s Secretary of State to accept declarations of nomination for, and to place on the June 2, 1992 primary election ballot, two congressional Representatives, unless a final determination is

(Continued from previous page)

(Washington Br. at 17-20.) This issue was not argued by the appellants below or in their Jurisdictional Statement and therefore should not be considered. E.g., *United Parcel Serv., Inc. v. Mitchell*, 451 U.S. 56, 60 n.2 (1981). Nonetheless, it bears mention that, “[i]n litigation involving the adjudication of public rights, non-parties who may be adversely affected by a decision in plaintiff’s favor do not have a protectable interest which would require their joinder under Rule 19.” 3A *Moore’s Federal Practice* ¶ 19.07[2.-0], at 19-100-01 (2d ed. 1989). Professor Moore has concluded further that Rule 19(a) implicitly incorporates the limitation in Fed. R. Civ. P. 24(a)(2) on intervention as a matter of right where “the applicant’s interest is adequately represented by existing parties.” 3A *Moore’s Federal Practice* ¶ 19.01-1[5.-6], at 19-38 (“[i]t appears . . . that despite the retention in Rule 24(a) of the representation qualification in 1966, without carrying it over into the revision of Rule 19 the same year, a person adequately represented so as to deprive him of a right to intervene normally is not a person to be joined if feasible under Rule 19(a), and *a fortiori* is not indispensable under Rule 19(b)”) (footnote omitted). Presently, the appellants have defended 2 U.S.C. § 2a(a) vigorously, thereby protecting any interest Washington may have in the statute’s validity. See generally 7 C. Wright, A. Miller & M. Kane, *Federal Practice and Procedure* § 1909, at 332-34 (2d ed. 1986) (collecting adequacy of representation cases decided under Rule 24(a)).

made that Montana is entitled to only one Representative. The legislation took effect immediately, and the Montana Districting and Apportionment Commission already has completed its plan for two congressional districts and submitted the same to the Secretary of State. Montana is prepared to go forward with its congressional elections whether it is ultimately determined to have one Representative or two.

CONCLUSION

Article I, section 2 requires that Representatives be apportioned among the States according to their respective numbers. In view of its literal language, and in the context of its historical and legal development, this constitutional provision dictates that, to the greatest extent practicable, each Representative represent the same number of people. 2 U.S.C. § 2a(a) fails to meet this constitutional standard. Congress should be directed to apportion the number of Representatives in the House in a manner which brings the population of each congressional district as near as possible to the ideal district size. The District Court's judgment should be affirmed.

Respectfully submitted,

MARC RACICOT*
 Attorney General of Montana
 CLAY R. SMITH
 Solicitor
 ELIZABETH S. BAKER
 Assistant Attorney General
 State of Montana
 Justice Building
 215 North Sanders
 Helena, MT 59620-1401
 (406) 444-2026

*Counsel of Record

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In the Supreme Court of the United States

OCTOBER TERM, 1991

UNITED STATES DEPARTMENT OF
COMMERCE, ET AL., APPELLANTS

v.

STATE OF MONTANA, ET AL.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA

REPLY BRIEF FOR APPELLANTS UNITED STATES
DEPARTMENT OF COMMERCE, ET AL.

KENNETH W. STARR
Solicitor General
Department of Justice
Washington, D.C. 20530
(202) 514-2217

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UNITED STATES DEPARTMENT OF
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v.

STATE OF MONTANA, ET AL.

*ON APPEAL FROM THE UNITED STATES DISTRICT COURT
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**REPLY BRIEF FOR APPELLANTS UNITED STATES
DEPARTMENT OF COMMERCE, ET AL.**

During the course of twenty-one censuses over the life of the American Republic, Congress has employed no fewer than four separate methods of apportioning Representatives among the several States. It did so until 1991 without even a suggestion, much less a constitutionally based challenge, that it is bound by the very general language of Article I, Section 2, Clause 3 to employ a specific methodological approach to apportionment—one which no Congress had ever employed and which fails to achieve principles of equity that Congress specifically took into account in 1941 in embracing the equal proportions method of apportionment. Against this formidable background of uninterrupted history, appellees strive to defend the district court's unprecedented holding that the Act of Congress that has apportioned Representatives among the States since 1941 is unconstitutional. That effort should fail.

This case has evoked much discussion of the rich history of apportionments by Congress, the mathematical

properties of various apportionment methods, the complex formulae by which those methods may be expressed, and competing views about the appropriate measures of equity in representation. In the end, however, the judgment below may be reversed on far simpler grounds. We have explained in our opening brief (at 10-13, 28-29)—and appellees do not dispute—that the method of equal proportions unquestionably apportions Representatives among the States “according to their respective Numbers” (i.e., respective populations). Indeed, under that method (and the others Congress considered), each State’s priorities are determined by a formula in which the numerator is the State’s population, and no State can receive a greater number of Representatives than another State that has a greater population. Nothing more is required by Article I, Section 2, Clause 3.

Appellees’ efforts to avoid this dispositive point are wholly without merit. Appellees’ position runs aground on (A) the political question doctrine, which bars a court from second-guessing Congress’s choice from among apportionment methods that are rationally tied to the States’ populations; (B) the text of the Constitution and the history of apportionment since 1792, which confirm Congress’s discretion and the constitutionality of the equal proportions method; and (C) principles of representation derived from the very reapportionment decisions upon which appellees rely.

On February 20, 1992, the three-judge district court in the suit brought by the Commonwealth of Massachusetts challenging use of the equal proportions method for the 1992 apportionment sustained the constitutionality of 2 U.S.C. 2a, thereby rejecting Massachusetts’ contention that the major fractions (Webster) method is constitutionally compelled. *Massachusetts v. Mosbacher*, No. 91-11234 (D. Mass. Feb. 20, 1992), slip op. 28-59.¹ This Court likewise should sustain 2 U.S.C. 2a.

¹ The district court in the *Massachusetts* case held, however, that the Census Bureau erred in counting federal military and civilian personnel stationed overseas. Slip op. 59-88. (If those personnel are

A. As the Court pointed out in *Baker v. Carr*, 369 U.S. 186, 210, 217 (1962), the political question doctrine derives from “the relationship between the judiciary and the coordinate Branches of the Federal Government,” and is “essentially a function of the separation of powers.” This case goes to the very core of those concerns, because appellees challenge an Act of Congress that determines the composition of Congress itself, as well as the Electoral College. It therefore is not surprising that, contrary to appellees’ contention (Br. 17-26), this case implicates the *Baker v. Carr* factors that signal the presence of a political question. Gov’t Br. 24-34.

1. a. Appellees concede (Br. 17) that “the apportionment of seats within the House of Representatives is committed to Congress under Article I, section 2, clause 3” (see *Prigg v. Pennsylvania*, 41 U.S. (16 Pet.) 539, 619 (1842)), but they do not regard Clause 3 as a “textually demonstrable constitutional commitment of the issue” within the meaning of *Baker v. Carr*, 369 U.S. at 217. Citing *INS v. Chadha*, 462 U.S. 919, 940-941 (1983), appellees argue (Br. 17) that the fact “[t]hat Congress is allocated power over a particular subject matter nonetheless has never been viewed as automatically insulating its exercise of such power from judicial review.” Appellees overlook the critical distinction between *Chadha* and this case. *Chadha* involved the exercise by Congress of one of its enumerated powers under Article I, Section 8 to “alter[] the legal rights, duties or relations of persons * * * outside the Legislative Branch.” 462

excluded, Massachusetts would be entitled to an additional Representative and the State of Washington would lose a Representative. *Id.* at 88 n.33.) In an accompanying order, the court directed the Executive Branch defendants to submit to the Clerk of the House, by March 31, 1992, a statement showing the number of Representatives to which each State would be entitled without inclusion of the overseas personnel, and directed the Clerk to send new certificates of entitlement to the States by April 10, 1992. However, those obligations of the federal defendants are contingent upon Massachusetts’ submission to the district court of a redistricting plan for eleven Representatives by March 30, 1992. We are currently considering appealing this ruling.

U.S. at 952 (emphasis added). By contrast, the law appellees challenge implements Article I, Section 2 and addresses the composition of the Legislative Branch itself. Nothing in *Chadha*, *Baker v. Carr*, or the other cases appellees cite supports their contention that the courts may entertain suits brought by individuals challenging Congress's resolution of that issue by selecting from among various apportionment methods that are tied to state populations.

The constitutional text in fact refutes any such contention. It provides for apportionment of Representatives among the States, with no reference to individual rights, and it concerns the political relationship between the States and the National Government. Compare *Coleman v. Miller*, 307 U.S. 433, 447-456 (1939) (whether States have ratified constitutional amendment proposed by Congress presents political question for Congress to resolve); *id.* at 456-460 (Black, J., concurring) (same); cf. *Chadha*, 462 U.S. at 955-956 n.21 (distinguishing Congress's submission of constitutional amendments from measures requiring presentment to President under Art. I, § 7, Cls. 2, 3).² Accordingly, appellees' portrayal (Br. 24-25 & n.23) of this case as nothing more than a variant of familiar "one person, one vote" litigation involving apportionments by state legislatures ignores the fact that appellees challenge an Act of Congress, and that the relevant constitutional text addresses a matter that is distinctly "political" in the relevant constitutional sense.

b. What is more, appellees make no effort to refute our submission (Gov't Br. 26-27) that closely related provisions of the Constitution that also determine the composition of the House of Representatives confirm the political nature of the question. First, Clause 3 commits

² Contrary to appellees' assertion (Br. 31 & n.28), there is no inconsistency between our position that Clause 3 apportions Representatives to the States themselves and our argument below that Montana lacks standing. The States are represented in Congress (see Gov't Br. 45 n.40), and it is in that forum that they must present any objections to an apportionment of Representatives. See also *Massachusetts v. Mellon*, 262 U.S. 447, 480-485 (1923).

the size of the House entirely to Congress's discretion, subject only to the minimum of one Representative for every State and the maximum of one for every 30,000 persons. The natural inference is that Clause 3 likewise commits to Congress's discretion the apportionment of whatever number of Representatives it chooses, so long as it is tied to state populations. Second, Clause 3 further provides that the decennial census shall be made "in such Manner as [the Congress] shall by law direct." Census data may profoundly affect the number of Representatives a State will receive. Because the text nevertheless commits the conduct of the census to Congress's discretion (Gov't Br. 27 & n.22), it would be illogical for the same Clause to require that Congress's choice of a particular apportionment method that is based on state populations ascertained by the census must be subjected to the sort of strict judicial scrutiny that appellees propose (Br. 44-45). Third, Clause 1 of Article I, Section 5 provides that each House shall judge the election of its Members, which gives the House unreviewable authority over the seating of Representatives from the States to which they are apportioned. Gov't Br. 27-28 & n.23. Given this foreclosure of any role for the courts at the conclusion of the process of constituting the House of Representatives, the Framers could not have intended to permit the courts to intrude deeply into the initial (apportionment) stage of that process.

2. Appellees' efforts to dismiss the remaining *Baker v. Carr* factors are equally unpersuasive. For example, appellees contend (Br. 21) that their apportionment challenge is justiciable because there is "no dispute" about which measures of equity are best served by the various apportionment methods considered by Congress in 1929 and 1941, and therefore no question "so exotic as to defy a court's competence to resolve." Appellees miss the point. Clause 3 furnishes a court with no guidance as to *which* of the possible measures of equity should be preferred. For this reason, selection of the appropriate measure of equity—and therefore of the apportionment method that

best comports with that measure—requires an “initial policy determination” that is necessarily committed to “nonjudicial discretion.” 369 U.S. at 217;³ compare *United States v. Sprague*, 282 U.S. 716, 730-732 (1931) (Article V affords Congress unreviewable discretion to choose between methods for proposing and for ratifying constitutional amendments).⁴

In a similar vein, appellees contend that a court may strike down Congress’s chosen method of apportionment “without expressing lack of the respect due coordinate branches of government.” Br. 23-24 (quoting 369 U.S. at 217). Appellees rely on the observation in *United States v. Munoz-Flores*, 495 U.S. 385, 390 (1990), that although a judicial ruling that Congress passed an unconstitutional law might in a sense be said to entail a lack of respect, to find a political question on that basis alone would render every challenge to a congressional enactment im-

³ Each of the measures of equity, in its own fashion, relates to the population of the respective States. Those differing measures are triggered by the fact, which is inescapable under the Constitution, that sparsely populated States (which would otherwise not be entitled to a full Representative) will automatically be over-represented under any method and that each State must receive a whole number of Representatives. In contrast, the intrastate districting cases, discussed at pages 14-18, *infra*, not only involved a different Clause of Article I, Section 2, but also involved situations where “one person, one vote” principles could be vindicated without doing violence to any policy choices embodied in the Constitution or congressional enactments.

⁴ Appellees criticize our reliance (Gov’t Br. 30) on *Japan Whaling Ass’n v. American Cetacean Soc’y*, 478 U.S. 221, 230 (1986), asserting (Br. 22 n.22) that *Japan Whaling* “explicitly reaffirmed the role of courts in construing constitutional and statutory provisions.” But as the passage they quote from *Japan Whaling* makes clear, the Court there spoke only of construing treaties, executive agreements, and statutes, not constitutional provisions that prescribe the political responsibilities of a coordinate Branch. 478 U.S. at 230. In fact, the Court reiterated in *Japan Whaling* that “[t]he political question doctrine excludes from judicial review those controversies which revolve around policy choices and value determinations constitutionally committed to the halls of Congress or the confines of the Executive Branch.” *Ibid.*

permissible. Appellees once again ignore the critical distinguishing features of this case. *Munoz-Flores*, like *Chadha*, involved a law passed pursuant to Congress’s enumerated powers to regulate matters outside the Legislative Branch; this case, by contrast, involves a law prescribing the composition of the Legislative Branch itself and the resulting political relationship between that Branch and the States. Judicial second-guessing on a matter so central to the political character of a coordinate Branch clearly would reflect a “lack of respect” within the meaning of the political question doctrine, and would, at the same time, be far removed from the ordinary function of judicial review.

Furthermore, contrary to appellees’ contention (Br. 25-26), this case *does* present “an unusual need for unquestioning adherence to a political decision already made” and “the potentiality for embarrassment from multifarious pronouncements by various departments on one question.” 369 U.S. at 342. The need to ensure prompt redistricting by the States weighs heavily against intervention by the courts after the President has transmitted the requisite statement to Congress. If corrections must thereafter be made, the proper forum is Congress, where all the States are represented and a dispositive resolution may be promptly enacted, rather than potential lawsuits in the fifty States, where all the States cannot be joined.⁵

⁵ The prospect of such an unwieldy regime of judicial review would produce a prolonged period of uncertainty after each census; undermine the accountability of Congress to the States and the people for resolution of an issue of paramount political importance; and create the appearance if not the reality of thrusting the federal courts into the political process. Cf. *Mistretta v. United States*, 488 U.S. 361, 407-408 (1989).

The district court in the *Massachusetts* case rejected the proposition that review of the 1992 apportionment is altogether barred by the political question doctrine (slip op. 21-28)—while noting our more limited submission in this Court (*id.* at 22)—and disparaged the doctrine as an “avoidance technique” (*ibid.*). Moreover, in identifying judicially discoverable and manageable standards—and in otherwise finding the *Baker v. Carr* factors inapplicable—the *Massachusetts* court relied on the “one person, one vote” principle that

3. Finally, appellees fault us for not arguing that *all* matters pertaining to apportionment among the States are nonjusticiable. Br. 18-19. Their complaint is as odd as it is unavailing. We assume that a court may appropriately review an apportionment law for the limited purpose of determining whether it is plainly contrary to an explicit textual limitation on Congress's power, such as the requirement that each State receive at least one Representative. Gov't Br. 28. However, because Clause 3 commits apportionment to Congress subject to certain explicit limitations, it does no violence to separation-of-powers principles for a court to ensure that Congress has acted within those outer limitations—and thereby within the scope of the constitutional commitment. See *Baker v. Carr*, 369 U.S. at 216-217; compare *Powell v. McCormack*, 395 U.S. 486, 520-521 & n.42 (1969).

By the same token, the presence of a political question does not invariably require dismissal of the entire case. A particular *issue* may be nonjusticiable in the sense that a court should defer to and adopt the resolution of it by a coordinate Branch, while leaving the court free to decide other issues and the overall case. *Baker v. Carr*, 369 U.S. at 212-213; *Vermilya-Brown Co. v. Connell*, 335 U.S. 377, 380-381 (1948).⁶

Wesberry v. Sanders, 376 U.S. 1 (1964), drew from *Clause 1* of Article I, Section 2 in the intrastate apportionment setting (slip op. 25-27), thereby straying from the commitment of interstate apportionment to Congress in *Clause 3*.

⁶ Appellees do not answer our contention (Gov't Br. 31-32) that the practical and jurisdictional difficulties in affording relief in a case such as this further cut against judicial involvement. They simply assert (Br. 47-50) that the district court in fact *did* grant effective relief by enjoining appellants from effecting apportionment under 2 U.S.C. 2a. Br. 47 (quoting J.S. App. 19a). As we have explained (Gov't Br. 32-33 n.27), however, that order has no effect on the 1991 apportionment, because appellants have already completed their duties under 2 U.S.C. 2a, and it is the statement transmitted by the President to Congress that determines the States' entitlements.

B. Our conclusion as to the constitutionality of Congress's specific choice of apportionment method—evident from the text of the Constitution and illuminated by the political question doctrine—is confirmed by history. From the outset, Congress has consistently acted on the premise that it may allocate Representatives in the manner that it finds most appropriate, so long as it comports with the general standard that apportionment be according to the "respective Numbers" of the States. In light of this historical practice and the extensive legislative record, it was manifestly reasonable for Congress in 1941 to settle upon the method of equal proportions, which resolves the problem of fractional remainders in a manner that minimizes the relative difference between any two States with respect to both persons per Representative (average congressional district size) and Representatives per person (each person's share of a Representative). See Gov't Br. 4-15, 34-43, 46-48; *Massachusetts v. Mosbacher*, slip op. 32-42, 53-59.

1. Certainly nothing in the history of the Constitution or the debates preceding its ratification forecloses the approach Congress has followed, including its rejection of harmonic means and adoption of equal proportions. In fact, as we have explained (Gov't Br. 34 & n.28), the few statements on the subject in the records of the Constitutional Convention suggest an expectation that fractional remainders would be disregarded. Those comments belie appellees' inspiration that the Constitution not only requires that fractions be taken into account, but requires that it be done in a particular way—by use of the complex formula for the method of harmonic means.⁷ An

⁷ Appellees deny (Br. 29 n.27) that our citations to the constitutional debates undermine their position, contending that the references to "fractions" either concerned the counting of three-fifths of slaves (citing 1 M. Farrand, *The Records of the Federal Convention of 1787*, at 559-562 (1966)) or arose in a discussion of the apportionment of taxes until the first census was taken (citing *id.* at 600-603; 2 *id.* at 357-358). This contention is disingenuous. Although Nathaniel Gorham referred to the "number of blacks & whites" in the first passage upon which we rely, his statement that "[f]ractions

observation by the district court in the *Massachusetts* case furnishes an apt rejoinder to this submission (slip op. 55): "If, as Justice Holmes reminded us, '[t]he Fourteenth Amendment does not enact Mr. Herbert Spencer's Social Statics,' *Lochner v. New York*, 198 U.S. 45, 75 (1905) (Holmes, J., dissenting), we find it difficult to believe that Article I, Section 2 enacted a particular mathematical formula to the exclusion of other approaches for obtaining equality 'as nearly as is practicable,' *Wesberry v. Sanders*, 376 U.S. at 78." See also slip op. 59.

2. Furthermore, if appellees are correct that Clause 3 of Article 1, Section 2 requires Congress to apportion Representatives so as to minimize absolute differences in the population of congressional districts (persons per Representative), then "Congress first went astray in 1792." *Walters v. National Ass'n of Radiation Survivors*, 473 U.S. 305, 323 (1985). For in that year and in every succeeding decade, Congress has failed to adopt the harmonic means method.

From 1792 through 1832, Congress disregarded all fractional remainders by using the greatest divisors

could not be observed" clearly referred to fractions of the ratio of one Representative for every 40,000 inhabitants, which was the proposal under consideration. 1 *id.* at 559. Similarly, although the context of the second and third statements upon which we rely was a debate on the apportionment of direct taxes, the principle of apportionment was the same for Representatives, and the statements of Oliver Ellsworth that we quote (Gov't Br. 34 n.28) specifically referred to fractions of the population ratios used to apportion Representatives.

Appellees likewise gain nothing from their general discussion (Br. 2-9, 28-29) of the Great Compromise, the Convention debates regarding representation in the House on the basis of population, and the requirement of a periodic census and reapportionment. None of that discussion suggests that Congress lacks discretion on the subsidiary question, at issue here, of which of several methods—all of which allocate Representatives in proportion to state populations—should be implemented. To the contrary, the very generality of the debates strongly supports the proposition that the Framers intended to leave such fine-tuning to Congress.

(Jefferson) method. Gov't Br. 5.⁸ Congress then used the major fractions (Webster) method for the 1842 apportionment, and switched in 1850 to the Hamilton-Vinton method. The latter method was mandated by statute at the time the requirement that Representatives be apportioned among the States "according to their respective Numbers" was reiterated in Section 2 of the Fourteenth Amendment. Gov't Br. 6-7, 37-39. As we have explained, Congress's incorporation of that language is most appropriately viewed as a ratification of the flexibility it had afforded Congress over the preceding decades. See Gov't Br. 39 (citing *Mobil Oil Exploration & Producing Southeast, Inc. v. United Distribution Cos.*, 111 S. Ct. 615, 624 (1991), and *Merrill Lynch, Pierce, Fenner & Smith, Inc. v. Curran*, 456 U.S. 353, 378-382 (1982)).⁹

⁸ Because Congress disregarded all fractions in 1792 and did not adopt the method that minimized absolute differences in persons per Representative, appellees' discussion (Br. 9-13, 29-30) of the debates on the apportionment law of 1792 does not support their argument that the latter method is constitutionally compelled. Moreover, the general references to "equality" in the debates (Br. 11 nn. 10 & 11) merely reflect the broad principle in Clause 3 that Representatives are to be allocated in proportion to state populations; they shed no light on the issue here.

Appellees misleadingly cite the remarks of Rep. Niles as reflecting a "concern for equality, 'as nearly as may be,' in the numbers of persons in each district." Br. 30 (quoting 3 *Annals of Cong.* 246 (1791)). While Rep. Niles did use the italicized phrase, he did not mention "districts"; rather, he referred to the total population of Delaware and the size of its fractional remainder under alternative apportionment ratios. Appellees also err in suggesting that Secretary of State Jefferson objected to the vetoed apportionment bill only because the fractions for which it appeared to assign Representatives were less than the minimum ratio of 30,000 inhabitants prescribed in the Constitution. See Br. 12 n.17, 30 (citing H.R. Doc. No. 234, 22d Cong., 1st Sess. 6 (1832)). In fact, Jefferson expressed the view that all fractions remaining after use of a specified divisor must be disregarded. *Id.* at 3.

⁹ Appellees try to avoid the ratification by observing that in *Mobil Oil* and *Merrill Lynch*, the "contemporary legal context" was created by prior court decisions that Congress was presumed to have incorporated into a subsequent enactment, while here that context was created by the actions of Congress itself. Br. 34-35 n.30. This dis-

And in particular, it refutes appellees' submission that the harmonic means method is constitutionally *compelled*, since that method had never been used. Compare *Richardson v. Ramirez*, 418 U.S. 24 (1974).¹⁰

3.a. Not only has Congress *never* used the harmonic means method that appellees insist is constitutionally compelled; for the six apportionments from 1941 through 1991, it has mandated use of the equal proportions method. Although appellees try to brush that practice aside with the observation that "historical patterns [alone] cannot justify contemporary violations of constitutional guarantees," Br. 35 n.30 (quoting *Marsh v. Chambers*, 463 U.S. 783, 790 (1983)), this longstanding construction of the Constitution is entitled to great weight, since it concerns "constitutional provisions governing the exercise of political rights and hence subject to constant and careful scrutiny" by Congress. *Smiley v. Holm*, 295 U.S. 355, 369 (1932); Gov't Br. 43.

b. Appellees also try to impeach the equal proportions method by asserting (Br. 43 n.37) that it was chosen over major fractions in 1941 solely for "political expediency," because it prevented the shift of a Representative from Arkansas (which voted Democratic at the time) to Michigan (which voted Republican). See also Mass. Amicus Br. 37-38. Appellees are wrong.

tion, however, cuts in favor of, not against, the ratification argument, because Congress reasonably may be presumed to be *more* aware of (and to more readily approve) its own prior decisions than it is those of the courts. See also Gov't Br. 39 n.32 (discussing legislative history of Fourteenth Amendment showing congressional awareness of existing apportionment statute).

¹⁰ Appellees try to explain away this fundamental defect in their position on the remarkable ground that "enactment of the Fourteenth Amendment preceded *Wesberry* and other landmark reapportionment decisions by nearly 100 years." Br. 35 n.30. Needless to say, *Wesberry* and the other decisions, which concerned intrastate apportionments by state legislatures, did not alter the meaning or congressional discretion embodied in the text of the Fourteenth Amendment (and Clause 3 of Article 1, Section 2) that governs the quite different subject of apportionment of Representatives by Congress among the States.

The political controversy principally concerned adoption of the equal proportions method for use in 1941, not in subsequent years, at issue here. See, e.g., 87 Cong. Rec. 8053-8054, 8057 (1941) (Sen. Vandenberg of Michigan) (expressing willingness to accept equal proportions method for the future); S. Rep. No. 573, 77th Cong., 1st Sess. Pt. 2, at 2 (1941) (minority views) (resting objection to bill only on provision for use of equal proportions method in 1941); 87 Cong. Rec. 8083-8088 (1941) (rejecting amendment offered by Sen. Brown of Michigan to delete that provision). The legislative history in fact reflects a thorough awareness of various studies concluding that the equal proportions method is most equitable—including the 1929 report by the committee of the National Academy of Sciences (NAS) (see Gov't Br. 10-13, 41); the 1921 report by the advisory committee to the Director of the Census Bureau (see 67 Cong. Rec. 7078-7080 (1926)); testimony at the hearings conducted by the House Committee; reports by the Census Bureau; a survey by Professor Edward Huntington of Harvard, *Methods of Apportionment in Congress*, S. Doc. No. 304, 76th Cong., 3d Sess. (1940); the 1941 Brookings Institution study, R. Schmeckebier, *Congressional Apportionment*; and a law review article by Professor Zechariah Chafee, *Congressional Reapportionment*, 42 Harv. L. Rev. 1015 (1929).¹¹ Against this background, the House Report found "little doubt the method of equal proportions is considerably favored over the method of major fractions" among the experts, and it expressed the opinion of the majority of the House Committee that the equal

¹¹ See H.R. Rep. No. 30, 77th Cong., 1st Sess. 2 (1941); 87 Cong. Rec. 1072 (1941) (Rep. Gossett); *id.* at 1073-1074 (Rep. Michener); *id.* at 1075 (Reps. Cox, Michener); *id.* at 1076 (Rep. Sabath); *ibid.* (Rep. Curtis); *id.* at 1077, 1082 (Rep. Terry); *id.* at 1083-1084 (Rep. Allen); *id.* at 1087 (Rep. O'Brien); *id.* at 1088 (Rep. Gathings); *id.* at 1124 (Rep. Murdock); *id.* at 1125 (Rep. Anderson); *id.* at 1128 (Rep. Mills); *id.* at 8051-8052 (Sen. Caraway); *id.* at 8054-8056, 8058-8059, 8079, 8083-8088 (Sen. Burton); *id.* at 8077-8079, 8080 (Sen. Brown); *id.* at 8081-8082 (Sen. Spencer).

proportions method "is the better and more equitable method." H.R. Rep. No. 30, *supra*, at 2.

4. To overcome this overwhelming historical precedent and legislative record in favor of Congress's discretion to select the equal proportions method—and against their argument that the harmonic means method is constitutionally compelled—appellees rely (Br. 30-34) solely on *Wesberry v. Sanders*, 376 U.S. 1 (1964). That case did not, however, announce a radical departure from the settled understanding of Congress's power to implement Article I, Section 2, Clause 3 and Section 2 of the Fourteenth Amendment. The Court did not even mention the point.

In *Wesberry*, the Court held that a state legislature must seek to achieve the standard of "one person, one vote" by drawing congressional districts within the State that, as nearly as practicable, contain equal numbers of people. 376 U.S. at 7-8; accord *Karcher v. Daggett*, 462 U.S. 725, 730-731 (1983). The Court did not address the antecedent question of how many Representatives Congress should apportion to the State (and therefore how many congressional districts the State should have), and the Court accordingly did not mention the apportionment methodology in 2 U.S.C. 2a, much less cast any doubt on its continuing validity.

Furthermore, *Wesberry* rested on *Clause 1* of Article I, Section 2, which provides that Representatives shall be chosen "by the People of the several States." See 376 U.S. at 7-8; *Reynolds v. Sims*, 377 U.S. 533, 559, 560 (1964). That Clause had previously been construed to afford a personal right to vote in federal elections. Gov't Br. 44. *Wesberry* built on those prior decisions to hold that a State may not dilute the right to vote by drawing congressional districts that have substantially unequal populations. 376 U.S. at 17-18. That holding has no application in this case, which involves neither a state legislature's regulation of congressional elections nor its drawing of congressional districts within the State, but rather *Congress's* apportionment of Representatives

among the States. That subject is governed by *Clause 3* of Article I, Section 2. Unlike *Clause 1*, *Clause 3* does not mention the "People" of the several States—and therefore does not suggest that it confers on the "People" of a State any personal rights with respect to the apportionment of Representatives by Congress. Instead, *Clause 3* provides for apportionment of Representatives to the States themselves, based on their aggregate populations. There accordingly is no textual basis for the district court's holding (and appellees' contention) that the Constitution requires Congress to apportion Representatives among the States so as to minimize the absolute difference between the average size of congressional districts within the States.

Appellees' only response is to plead (Br. 31-32, 34) that *Clause 1* and *Clause 3* of Article I, Section 2 should be read together, so that the apportionment method they believe best comports with the "one person, one vote" principle that *Wesberry* extracted from *Clause 1* can be imported into *Clause 3* as well. See also Mass. Amicus Br. 14-16. That argument tears constitutional analysis from constitutional text: it simply ignores the fact that *Clause 1* refers to the "People of the several States"—and thus, under *Wesberry*, requires equality of representation among the people (and the congressional districts into which they are placed) within each of the separate States—while *Clause 3* conspicuously omits any comparable language, and instead addresses the distinct relationship between the House of Representatives and the States themselves.

Nor is there any practical justification for the Court, at this stage of the Nation's history, to embark on the unprecedented path of subjecting Acts of Congress apportioning Representatives among the States to the sort of scrutiny to which decisions such as *Wesberry* and *Reynolds v. Sims* have subjected a state legislature's reapportionment of congressional districts or state legislative districts within a State. Those cases were prompted by

gross malapportionments that had resulted from intentional decisions to favor certain geographic areas or the failure by state legislatures to redraw district lines in response to dramatic population changes. See, e.g., *Wesberry*, 376 U.S. at 2; *Reynolds v. Sims*, 377 U.S. at 545-551. Those circumstances directly implicated concerns about "rotten boroughs" within the States that had been voiced by the Framers. See *Wesberry*, 376 U.S. at 14-15.

No remotely parallel circumstances are present here with respect to the apportionment of Representatives among the States. There can be no serious contention that Congress has failed to make "an honest and good faith effort" (*Reynolds v. Sims*, 377 U.S. at 577) to provide for that apportionment in accordance with principles of equity among the States and their inhabitants. To the contrary, as the three-judge court in the *Massachusetts* case observed, "[t]he Constitutional command of decennial reapportionment coupled with Congress's own institutional concerns has resulted in continuous, thoughtful, extensive and intensive examination of the problem by Congress throughout the past two centuries," and "it is apparent that Congress has carefully addressed itself to finding a method which implements the basic principle of assuring as nearly as practicable equal representation in the House of Representatives for equal numbers of people." Slip op. 43. Proper respect for Congress, and the dictates of the political question doctrine, compel rejection of efforts by the courts to "improve" on that process.

C. Even if we assume, *arguendo*, that the "one person, one vote" principle of *Wesberry* is applicable in this setting, appellees' challenge to the equal proportions method still fails. That was the holding by the *Massachusetts* court, which, applying a standard of review drawn from *McCulloch v. Maryland*, 17 U.S. (4 Wheat.) 316, 421 (1819), concluded that the equal proportions method is "plainly adapted to the end of approximating as close as

practicable the goal of 'one person, one vote,' " and that "nothing in the Constitution prohibits it." Slip op. 51, 53, 54-56.¹² In so ruling, the court rejected the "wholesale assimilation" (urged by appellees here) of the rigid standards of *Karcher v. Daggett*, correctly finding them not "appropriate for the task" of evaluating congressional apportionment judgments. *Id.* at 50. In its view, the stringent standards imposed on a state legislature under *Karcher* reflect the status of the State as "a delegatee of the federal governmental organization." *Id.* at 48. By contrast, the court reasoned, greater deference must be given to the "distinctive qualities" of the considered judgment by a "separate and coequal branch" when it apportions Representatives among the States. *Id.* at 50.¹³

Furthermore, application in this setting of the rigid *Karcher* standards makes no practical sense. Where ap-

¹² The *Massachusetts* court rejected both the plaintiffs' contention that 2 U.S.C. 2a must be subjected to strict scrutiny and the government's contention that judicial review is confined to determining whether Congress's judgment offends an express textual limitation in the Constitution (such as the requirement that the apportionment be tied to state populations). The court rejected the latter standard because it would exclude from consideration "the 'one person, one vote' principle derived in *Wesberry* from the perceived intent which animated the words 'by the People of the several States' in Article I, Section 2, Clause 1" (slip op. 52-53)—a principle that it also found to be "implicit in the letter and [to] animate[] the spirit of the Constitutional requirements" governing Congress's apportionment of Representatives among the States. Slip op. 53.

¹³ This distinction finds a rough parallel in the more deferential standard the *Massachusetts* court noted in this Court's decisions reviewing a State's apportionment of its own legislature (see *Gaffney v. Cummings*, 412 U.S. 735, 741-742 (1973)), since "the states are entitled to some latitude in defining the way in which they accommodate the various interests which come into play when they organize their own governmental structures." Slip op. 48. Congress's apportionment of Representatives among the States also more closely resembles apportionment of a state legislature than the drawing of congressional districts within a State for the additional reason that the entire 435 seats are at stake and the political boundaries of the States must be respected. Compare *Mahan v. Howell*, 410 U.S. 315, 321-322 (1973).

portionment of congressional districts within a State is concerned, it is possible to achieve virtually absolute equality in both persons per Representative (congressional district size) and Representatives per person (each person's share of a Representative). By contrast, in an apportionment of Representatives among the States, there inevitably will be differences of several hundred thousand in the number of persons per Representative between the States under *any* apportionment method Congress might choose. 2 J.A. 69-70. These differences are inherent in the exercise by Congress of its plenary power to implement Clause 3 and Section 2 of the Fourteenth Amendment; as a result, the fact that the magnitude of those differences might vary somewhat depending upon the particular apportionment formula Congress actually selects cannot alone be thought to *violate* those same constitutional provisions. Otherwise, Congress would be stripped of the flexibility and independent judgment it historically has exercised to accomplish the complex task of fashioning an apportionment that, in its view, best balances from a number of perspectives the equities of both the States and their people. Accordingly, neither *Karcher's* analytical framework nor its unyielding drive toward perfect equality in congressional-district size can appropriately (or effectively) be transplanted to this quite distinct setting.

Finally, as we explained in our opening brief (at 46), equality of representation—and the principle of one person, one vote—may be expressed either in terms of persons per Representative or each person's share of a Representative; indeed, “there is no inherent reason for the choice of one rather than the other.” Chafee, 42 Harv. L. Rev. at 1031. As amicus Massachusetts points out (Br. 20), when drawing congressional districts *within* a State, the requirement of *Wesberry* and *Karcher*—that the districts be equal in population as nearly as practicable—serves to minimize absolute differences in *both* measures.

By contrast, in apportioning Representatives among the States, no single method minimizes absolute differences in both measures. Rather, the harmonic means

method urged by Montana minimizes absolute differences in the number of persons per Representative, while the major fractions method urged by Massachusetts minimizes absolute differences in shares of a Representative. Accordingly, to adopt one of those methods would disserve the goal of the other. However, the equal proportions method has the considerable virtue of minimizing *relative* differences in *both* persons per Representative and shares of a Representative. Gov't Br. 41. As the district court in *Massachusetts* observed, “relative measurement is a mathematically acceptable means by which to make equity comparisons”; “[certainly] nothing in the Constitution” or the “case law” prohibits it, and in the apportionment decisions of this Court cited by the district court in the instant case (J.S. App. 14a), the relative (percentage) difference from ideal district size was a “critical element of evaluation.” Slip op. 56.

Furthermore, the 1948 NAS report established that although harmonic means is superior to equal proportions (and the other three methods) in minimizing absolute differences between persons per Representative,¹⁴ it is inferior to equal proportions in minimizing absolute differences in shares of a Representative. Conversely, although major fractions is superior to equal proportions (and the other three methods) in minimizing absolute differences in shares of a Representative, it is inferior to equal proportions in minimizing absolute differences in persons per Representative. Gov't Br. 46-47. Thus, in addition to minimizing relative differences, equal proportions occupies a middle ground between harmonic

¹⁴ As we have pointed out (Gov't Br. 47-48 & n.42), appellees in any event greatly exaggerate the advantages of the harmonic means method in this case even under the single standard of absolute equity they endorse. Indeed, the 8.7% difference in the range of congressional district sizes under the two methods would not, in our view, rise to the level necessary to trigger further scrutiny under *Wesberry* principles in the special context of apportionment of Representatives among all the States. Cf. *Brown v. Thompson*, 462 U.S. 835, 842 (1983) (10% threshold to trigger scrutiny of statewide apportionment of state legislative districts).

means and major fractions with respect to *absolute* measures of equality.¹⁵ An apportionment method that has these qualities—and that has consistently produced an equitable apportionment over the past half century—plainly does not violate the general standards of equity in Article I, Section 2 and the Fourteenth Amendment.

For the foregoing reasons and those stated in our opening brief, the judgment of the district court should be reversed and the case should be remanded with directions to enter judgment for the appellants.

Respectfully submitted.

KENNETH W. STARR
Solicitor General

FEBRUARY 1992

¹⁵ The equal proportions method also minimizes the variance of the 435 congressional districts from the nationwide average district size. See Gov't Br. 42. Appellees concede (Br. 40) that variance is a mathematically accepted measure of "dispersion of data around a particular point."

In addition to promoting the notions of individual equity embodied in the "one person, one vote" principle, the equal proportions method also allocates the contested Representative to a State (Washington) that has a higher fractional remainder than Montana. See Gov't Br. 29. Similarly, in the 1941 dispute concerning Arkansas and Michigan (see pages 12-13, *supra*), the equal proportions method allocated the contested Representative to Arkansas, which had the higher fractional remainder, while the major fractions method allocated it to Michigan, which had the lower remainder. See M. Balinski & H.P. Young, *Fair Representation* 58 (1982).

Amicus Massachusetts argues (Br. 33-36, 47-51) that, as compared with major fractions, the equal proportions method produces results that deviate too far from each State's "quota" and is biased in favor of smaller States. Those contentions were answered by the three Ernst Declarations filed by the government in the district court in the *Massachusetts* case (and lodged with the Clerk of this Court), and they were rejected by the district court in that case. Slip op. 57-58.

NO. 91-860

Supreme Court, U.S.

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IN THE
SUPREME COURT
OF THE
UNITED STATES

OCTOBER TERM, 1991

UNITED STATES DEPARTMENT OF COMMERCE; *et al.*,
Appellants,

v.

THE STATE OF MONTANA; *et al.*,
Appellees.

ON APPEAL FROM THE UNITED STATES
DISTRICT COURT FOR THE
DISTRICT OF MONTANA

BRIEF OF THE STATE OF WASHINGTON
AS AMICUS IN SUPPORT OF APPELLANTS

KENNETH O. EIKENBERRY
Attorney General
State of Washington

JAMES M. JOHNSON*
Sr. Assistant Attorney General

CAROLE A. RESSLER
Assistant Attorney General
**Counsel of Record*

Highways-Licenses Bldg.
Seventh Floor
P.O. Box 40100
Olympia, Washington 98504-0100
(206) 753-4556

QUESTIONS PRESENTED

Article I, section 2, clause 3 of the United States Constitution provides that representatives in the United States House of Representatives "shall be apportioned among the several States which may be included within this Union, according to their respective Numbers." Section 2 of the Fourteenth Amendment reiterates that requirement. The questions presented by this case are:

1. Whether Congress's choice among alternative means of apportioning representatives that are rationally tied to the respective populations of the states is subject to review by a court.

2. Whether 2 U.S.C. 2a, which provides for apportionment of representatives on the basis of the mathematical formula known as the "method of equal proportions," satisfies the requirement that representatives be apportioned among the states "according to their respective Numbers."

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NO. 91-860

IN THE
SUPREME COURT
OF THE
UNITED STATES

OCTOBER TERM, 1991

UNITED STATES DEPARTMENT OF COMMERCE; *et al.*,

Appellants,

v.

THE STATE OF MONTANA; *et al.*,

Appellees.

ON APPEAL FROM THE UNITED STATES
DISTRICT COURT FOR THE
DISTRICT OF MONTANA

BRIEF OF THE STATE OF WASHINGTON
AS AMICUS IN SUPPORT OF APPELLANTS

INTERESTS OF AMICUS

The State of Washington's population grew between 1980 and 1990 by a percentage exceeding that of the country as a whole (and exceeding that of Montana). As a direct consequence of those population changes, Washington has gained one seat in the House of Representatives. Montana has lost one. The exact "quotas" for those states (the states'

percentage of national population times 435 House seats) were Washington 8.538, Montana 1.404.¹ Montana seeks by this litigation to transfer a Washington seat to Montana. The decision below, while not ordering that result, would have that effect if retroactively implemented.²

The "Washington Paradox"

The decision of the court below, if retroactively implemented by taking a representative from Washington and giving it to Montana, would create a "Washington Paradox"; a state with a .404 fractional remainder would receive an extra representative while a state with a .538 would receive one fewer.³ This contradicts the result under every system of apportionment approved by Congress since the United States Constitution was ratified.

Such a result arguably contradicts the text of the Constitution which apportions to states "according to their respective numbers." Such a result is also contrary to the intent of the Framers of the Constitution, to the extent such intent may be derived from their comments (*infra*, pp. 21-23) and from the apportionment method adopted by those members of the early Congress who had participated in the Constitution's creation and ratification.

¹Given these population trends, by the time this case is decided, Washington's claim will actually be relatively better than even those figures established.

²The decision of the two Montana district judges (J.S., pp. 1a-19a) makes clear its preference of the Dean method of apportionment. The dissenting circuit judge notes the result "Washington State's ninth House seat would be reassigned and added to Montana" (J.S., p. 29a). This result was not asked for in the Complaint. (Mot. Affirm, App. 8.)

³Other states may label the paradox differently, e.g. Massachusetts with a .532 remainder also has a better claim to the disputed seat than Montana under the Jefferson, Webster and Vinton methods. Under the Hill method, neither get this seat. This indicates the fallacy of two-state pairing as a sole criterion for judging apportionment methodology.

The States' Dilemma; Should They Redistrict?

Montana received all the relief it specifically requested below: a declaration that the apportionment statute is unconstitutional and a prospective injunction against the United States implementing it.

Montana now suggests "the only way to give effect to the plain language of the court's findings is to void the certificates of entitlement issued in January 1991" (Mot. Affirm, p. 16, n.8).

One result of such relief (never pleaded) may be to void the results of congressional redistricting completed by Washington--and most other states--in good faith reliance on the finality of apportionment and Certificate of Entitlement each received. Montana took no action after the preliminary census returns in 1990 were released indicating its loss of one seat. Montana continued to delay after the Census was finally reported (December 26, 1990), after the President's Report was prepared and transmitted to Congress (January 2, 1991), and after a Certificate of Entitlement was transmitted to each state (January 16, 1991). Finally, on May 22, 1991, four plus months after all states received the Certificates, Montana finally filed its Complaint (Mot. Affirm, App. 8). Redistricting processes had long since commenced in most states and been completed in many.

There is no way Washington (or most other states) could lawfully proceed otherwise. Redistricting takes time and elections deadlines limit the time available. Schedules and deadlines are established by constitution, statute, or both. Washington's redistricting deadline is constitutional (Wash. Const. art. 2, § 43, amend. 74). (A summary of states which have completed redistricting is App. A.)

Montana alone bears the responsibility for the delay described above and its potentially disruptive effects. These public consequences are strong equitable considerations weighing against its claim for extraordinary relief. *Weinberger v. Romero-Barcelo*, 456 U.S. 305 (1982).

STATEMENT

A. Proceedings

In accordance with the United States Constitution, (art. I, § 2, cl. 3) and statutory requirements (13 U.S.C. § 141a), a census was conducted of the United States as of April 1, 1990. On December 26, 1990 the results were reported to the President as required by the statute. In accordance with statutory requirements (2 U.S.C. § 2a(a)), on January 3, 1991 (the first day of the 102nd Congress), the President transmitted to Congress a report showing the results of the 1990 Census, and the number of representatives to which each state is entitled.

Washington's exact (proportionate to population) share of the 435 United States House seats was 8.538, and Montana's was 1.404.⁴ Under the "equal proportions" method mandated by 2 U.S.C. § 2a, the President's Statement reported Washington entitled to nine seats, and Montana to one seat.

On January 16, 1991, the Clerk of the United States House of Representatives transmitted to each state a Certificate of Entitlement to that number of representatives (Montana's Certificate is Mot. Affirm, App. 10; Washington's Certificate is reprinted herein as App. B).

Because the letter of transmittal of that Certificate suggested possible change of the Certificates in the event of census adjustment,⁵ Washington filed an action in the United States District Court in Washington (*Washington v. United States Dep't of Commerce*, No. C91-315Z, (D. Wash. filed March 7, 1991)).⁶ Washington's action sought a declaration and injunction barring the Clerk from revoking or modify-

⁴If calculated today, annual census reports confirm that Washington's advantage would be greater.

⁵Other litigation demanding adjustment of the Census figures was, and is, pending in district court, e.g., *New York v. United States Department of Commerce*, 713 F. Supp. 48 (1989) (preliminary rulings reported).

⁶All states were served with the pleadings.

ing its Certificate. It was argued that neither Constitution nor statute give the Clerk authority to change any state's Certificate.⁷ (This argument, as relevant to the instant action, is summarized, *infra*, pp. 12-16). The action is still pending.⁸

Three and one-half months later (May 22, 1991) Montana filed this suit. Washington filed a Motion to Appear Amicus specifically noting that Washington declined to waive its immunity to suit.

A three-judge district court was convened, composed of two Montana district court judges and one circuit court judge.

The State of Washington later filed an Amicus Brief in Support of the Executive Branch Defendants' Motion to Dismiss in which it was argued that Washington (or any state from which Montana sought to take a representative), was an indispensable party, and that the Certificates of Entitlement to United States House seats already issued were irrevocable.

B. State Redistricting Processes

The Certificate of Entitlement to nine United States House seats was duly received by Washington's Governor, and transmitted to the Washington Redistricting Commission established by Washington Constitution, article 2, section 43, amendment 74.

The Redistricting Commission, as required by the Washington Constitution and relevant statute (Wash. Rev. Code § 44.05 (1984)) conducted extensive hearings around the state and redistricted Washington into the nine United States House districts (and intertwined state legislative

⁷The same action sought to enjoin the Census Bureau from "adjustment" of the Census. When the United States Department of Commerce decided not to adjust (56 Fed. Reg. 33, 582 (1991)), that part of the action was nonsuited.

⁸The Clerk has entered into a stipulation to abide by the decision of that court.

districts). The Redistricting Plan was completed, filed January 1, 1992 and is now final.⁹

Washington is not the only state which has completed redistricting. By the date this case is to be argued, 29 states will have completed redistricting to implement reapportionment under the statute alleged unconstitutional herein (App. A).

Ironically, Montana has not congressionally redistricted. If it prevailed, Montana would be faced with the choice of conducting elections at large, or under an unconstitutional apportionment (the present population of Montana's districts drawn in 1981 are 417,172 and 381,894). They do not meet applicable standards for congressional districts within a state.¹⁰

SUMMARY OF ARGUMENT

I. THE TIME HAS LONG PASSED TO CHALLENGE THE ACTIONS OF THE PRESIDENT AND CONGRESS IN THE 1990-91 APPORTIONMENT.

Such a challenge now violates the separation of powers. *Baker v. Carr*, 369 U.S. 186, 210 (1962). The very structure of the Constitution, by including apportionment in article II shows this separation of powers. *INS v. Chadla*, 462 U.S. 919, 946 (1983).

Selection of a method to provide for fractional remainders in apportioning representatives among the several states is a congressional function "irresistibly flowing" from article I, section 2. *Prigg v. Penn*, 41 U.S. 6109 (1842). The question, then, is a nonjusticiable political question. *Baker*, 369 U.S. at 210.

⁹Subject only to legislative amendment before February 12, 1992, which requires two-thirds vote of each House. Wash. Rev. Code 44.05.100.

¹⁰Montana's filing date for Congress is in March of 1992 (75 days before the primary), (Mont. Code Ann. § 13-10-201(6) (1987)). The primary is in June (Mont. Code Ann. § 13-10-401, citing 13-1-107 (1987)).

The action is time-barred, the process was completed, the President has reported each state's proper apportionment, and irrevocable Certificates of Entitlement to those United States House positions have been issued to all states by the Clerk before the commencement of this action.

Any state whose House seat is to be taken by Montana is an indispensable party, yet no state was joined. The burden to do so is on Montana, and the case should be dismissed on that basis alone. *Martin v. Wilks*, 490 U.S. 755 (1989).

II. IF CONSIDERED ON THE MERITS, 2 U.S.C. § 2A IS CONSTITUTIONAL:

If the appropriate constitutional standards are applied, Congress's selection of the "equal proportions" method must be upheld. Interstate reapportionment under article I, section 2, clause 3 is not subject to the same standards as intrastate redistricting under article I, section 2, clause 1. *Wesberry v. Sanders*, 376 U.S. 1 (1964) (distinguished).

Congress has not been shown by Montana to have acted other than in good faith. (*Karcher v. Daggett*, 462 U.S. 725, 730-31 (1983)). The selection of a method before the results are known avoids discrimination or political decision-making based on state impacts.

A. The "equal proportions" method is the best, on mathematical and equitable grounds. It assures that each person's share of a representative is equal. Any transfer of representatives will increase the relative difference between that state's average district size and the ideal, and will increase the relative difference between each person's share of a representative.

The method was selected after an objective evaluation of alternatives by the National Academy of Sciences (NAS) and is supported by subsequent analyses.

The "equal proportions" method has numerous advantages over the Dean method when applied long-term (to numerous apportionments). It minimizes *total* variance from

ideal. "Equal proportions" also provides a smaller probability of quota violation and has less of a bias between smaller and larger states than the Dean method.

The Framers intended results such as those Montana challenges. Elsworth spoke of a state which "might have one Representative only, that had inhabitants enough for 1 1/2 * * *" 2 *The Records of the Federal Convention of 1787* at 358 (Farrand ed. 1937). The first apportionment adopted rounded-down fractions, like Montana's.

ARGUMENT

I. THE 1990-91 APPORTIONMENT OF REPRESENTATIVES IS NOT NOW SUBJECT TO REVIEW

The district court dealt only summarily with whether the Complaint dealt with a nonjusticiable political question, and not at all with whether it ought be dismissed because of Montana's delay in filing and failure to join indispensable parties (J.S., 5a). Under all of these grounds, the case ought to have been dismissed. They shall be considered seriatim below.

A. Congress's Selection of a Method to Provide For Fractional Remainders in Apportioning Representatives Among the Several States Under Article I, Section 2, Clause 3 Is a Political Question

Montana and its congressional representatives filed this action instead of asking Congress to change the method of apportionment. Indeed, Montana's congressional representatives have never even filed a bill in Congress to change the apportionment method.¹¹

¹¹Ironically, both Montana congressmen opposed change of the equal proportions method when last considered by Congress (quoted and cited *infra*, p. 10, 11).

In order to get the additional United States House seat through court action, Montana must not only have the court void an act of Congress but also compel the adoption of a statute encompassing an apportionment method more favorable to Montana. The Court must also void the House Clerk's Certificates of Entitlement (presumably those of all states). Montana now suggests this drastic remedy is appropriate (Mot. Affirm, p. 16, n.8).

Then, to get Montana the extra House seat, the President (a nonparty) must be ordered to make a new report to Congress providing two House seats for Montana.¹² Finally, the House Clerk must be ordered to issue (all) new Certificates of Entitlement with at least Montana's and Washington's entitlement changed.

Each of these steps involves reversing actions of the separate branches of government, which have long become final. The case clearly involves nonjusticiable political question(s).

This Court has said that:

In determining whether a question falls within [the political question] category, the appropriateness under our system of government of attributing finality to the action of the political departments and also the lack of satisfactory criteria for a judicial determination are dominant considerations.

The nonjusticiability of a political question is primarily a function of the separation of powers.

Baker v. Carr, 369 U.S. 186, 210 (1962) (cite omitted).

Washington (and other states) have already concluded their congressional redistricting, in reliance upon the finality of the actions of both the Executive Branch and the Legislative Branch.

The final actions of the Executive Branch were two: First, the Secretary of Commerce made its final report of the Census results on December 26, 1990 (13 U.S.C. § 141(b)).

¹²Because Washington's population is growing faster than Montana's, by the time the report is made, a current report would probably dispense with Montana's claim.

Then, the President certified the final apportionment results of the 1990 Census including states' apportionment to the Congress on January 3, 1991 (the first day of the 102nd Congress) (2 U.S.C. § 2a).

The Legislative Branch has also taken its final action. The Clerk of the House sent each state its Certificate of Entitlement on January 16, 1991 (2 U.S.C. § 2b). On their face, and by statute, these Certificates are final until the next decennial census and apportionment.

At another level, the finality in question is the act of Congress selecting an apportionment method (2 U.S.C. § 2a). While arguably subject to challenge either in Congress or the courts, *between* census/apportionments, the statutory scheme should be considered final during each census/apportionment. The advantages of having a final congressionally-adopted apportionment formula in place *before* the political effects of census changes were apparent has long been recognized. This was one of the reasons for adoption of the statute:

Heaven knows, out of the American experience, that rules have got to be hard and fast if constitutional nullification in a large sense is to be prevented in connection with the reapportionment of the House of Representatives.

(87 Cong. Rec. 8053 (1941)) (Statement of Senator Arthur Vandenberg). He has been referred to as "the champion of permanent legislation" (M. Balinski & H.P. Young, *Fair Representation*, 58 (1982)).

When Congress considered the statute in 1980¹³ both Montana congressmen (plaintiffs below) testified in opposition to changing the method once the results of a census are known.

I think it is entirely inappropriate, however, to adopt a new formula after the census facts are known * * * so that we are not, rightfully, accused of adopting a formula to fit the facts.

¹³This was years after *Wesberry* and most of the cases that Montana claims establish the unconstitutionality of this statute. *Wesberry v. Sanders*, 376 U.S. 1 (1964).

Census Activities and the Decennial Census: Hearing on HR 1990 Before the Subcommittee on Census and Population of the House Committee on Post Office and Civil Service, 97th Cong., 1st Sess. (1981) p. 13 (Statement of Representative Williams).

What we have here is a situation where the ball game has been played under a prescribed set of rules; someone has lost, and now they want to change the rules * * * we will no longer have a situation where Congress can act free from political considerations and in the national interest.

Id. at p. 11 (Statement of Representative Marlenee).

The "dominant consideration" of attributing finality to actions of the separate branches argues in favor of finding the question "political" and nonjusticiable. In this interstate apportionment, the separation of powers is keenly implicated, since orders directed to both branches would be necessary to provide the desired remedy.

Baker, and later cases, have noted that a challenge to (intra) state redistricting did not implicate the separation of federal powers because that doctrine concerns: "the relationship between the judiciary and the coordinate branches of the Federal Government, * * *" *Baker*, 369 U.S. at 210. This case involves both the federal judiciary/executive and federal judiciary/legislative relationship: These questions are "essentially a function of separation of powers." *Baker*, 369 U.S. at 217.

It will be noted below that there are "policy choices and value determinations" tied to the selection of apportionment method which are "constitutionally committed for resolution to the halls of Congress." *Japan Whaling Ass'n v. American Cetacean Soc'y*, 478 U.S. 221, 230 (1986). Such political cases are not appropriate for judicial resolution.

A last observation of *Baker* is also relevant to the finality argument. "The political question doctrine, [is] a tool for maintenance of government order, [and] will not be so applied as to promote only disorder." *Baker*, 369 U.S. at 215.

The fact that states have already redistricted, creating congressional districts intertwined with legislative and local districts, raises additional issues of federalism and whether states may rely on the results of congressional and executive process. In Washington and other states, a change at this late date would disrupt the political process, probably making it impossible to conduct 1992 elections in accordance with statutory deadlines.

B. Washington's Entitlement May Not Be Revoked

1. The Clerk Does Not Have Authority to Revoke Washington's Certificate of Entitlement

Montana now suggests the appropriate remedy "is to void the certificates of entitlement issued in January 1991" (Mot. Affirm, p. 16, n.8).¹⁴

However, the Clerk does not have statutory or other authority, to revoke or modify the Certificate of Entitlement of Washington or other states.

2 U.S.C. § 2a(b) provides that the Clerk *shall* issue a Certificate within 15 days after receiving apportionment figures from the President, and does not provide, explicitly or otherwise, for the revocation or modification of a Certificate once it has been issued.

The word "shall" in a statute is mandatory language. *Board of Pardons v. Allen*, 482 U.S. 369, 374 (1987); *Bergen v. Spaulding*, 881 F.2d 719, 721 (9th Cir. 1989).

The statute even goes on to specify who "shall" perform this duty if the Clerk does not:

In case of a vacancy in the office of Clerk, or of his absence or inability to discharge this duty, then such duty shall devolve upon the Sergeant at Arms of the House of Representatives; and in case of vacancies in the offices of both the Clerk and the Sergeant at Arms, or the absence or inability of both to act, such duty shall de-

¹⁴The Complaint did not pray for such relief (Mot. Affirm, App. 8).

volve upon the Doorkeeper of the House of Representatives.

2 U.S.C. § 2a(b).

This Court has held the interpretation of a statute must begin with the statute's language. If the statutory language is unambiguous, in the absence of a clearly expressed legislative intent to the contrary, that language must ordinarily be regarded as conclusive. *United States v. Turkette*, 452 U.S. 576, 580 (1981). A fundamental canon of statutory construction is that, unless otherwise defined, words will be interpreted as taking their ordinary, contemporary, common meaning. *Perrin v. United States*, 444 U.S. 37, 42 (1979).

The plain language of 2 U.S.C. §§ 2a and 2b indicate that the Clerk must issue Certificates in accordance with the President's Statement and has no authority to revoke or modify an issued Certificate.

The legislative history of the statute, discussed below, confirms that the Clerk cannot, without explicit statutory authority, revoke or modify the Certificate.

2 U.S.C. §§ 2a and 2b provide that each state is "entitled" to the number of seats shown in the President's Statement and indicated in its respective Certificate until the taking effect of a subsequent reapportionment. To interpret the statutes to allow the Certificate to be changed would render this entitlement language meaningless. It is an elementary canon of construction that a statute should be interpreted so as not to render one part inoperative. *Mountain States Tel. & Tel. v. Pueblo of Santa Ana*, 472 U.S. 237, 249 (1985). In construing a statute a court is obliged to give effect, if possible, to every word Congress used. *Reiter v. Sonotone Corp.*, 442 U.S. 330, 339 (1979).

The vesting of each state's entitlement probably occurs at the time the President's Statement is filed with the Congress; surely it vests when the Certificate is actually issued and received.

Thus, pursuant to 2 U.S.C. §§ 2a and 2b, once the President and Clerk acted, Washington was entitled to nine congressional seats until the next census and apportionment

(in the year 2000). The Clerk has no authority to revoke or modify a Certificate after it has been issued or to issue any certificate varying from the Statement of the President. The Clerk may not be ordered to perform an act he has no authority to perform.

2. Legislative History Confirms That the Certificates of Entitlement Are Irrevocable (Absent Congressional Action)

The legislative history of 2 U.S.C. §§ 2a and 2b confirms that Washington's entitlement is irrevocable, short of explicit direction by an act of Congress. There is only one historical instance in which a state was denied a seat to which it was entitled according to a Certificate. An explicit act of Congress was required to take away the seat.

In 1941, Congress debated amendments to 2 U.S.C. § 2. As required by the statute, as then written, the President had reported the 1940 census results to the Congress in the first week of 1941. He also reported the appropriate reapportionment by the two methods then prescribed by statute ("major fractions" and "equal proportions"). The methods of apportionment resulted in either Arkansas or Michigan getting one House seat. At that time, the statute provided that the method of apportionment used in the previous census should continue to apply unless Congress ordered otherwise within sixty days. The method of major fractions had been followed in the previous reapportionment.

The Senate did not act within sixty days. 87 Cong. Rec. 8053 (1941) (Statement of Senator Vandenberg).

In commenting on this situation, and the effect *if* Congress didn't specifically order a change, Senator Vandenberg stated:

When the Senate did not act within 60 days, the statute made reapportionment by so-called major fractions final and conclusive and binding upon all concerned. The case was closed; the incident was finished; and the Clerk of the House so notified the States.

87 Cong. Rec. 8053 (1941).

To change that situation, it was recognized that a specific act was required.

Such a retroactive change was bitterly opposed. The debate confirmed the general proposition of our argument here; unless Congress specifically acts, the Certificates are final. A section of the bill directed the Certificates be changed. Senator Brown vigorously objected as follows:

So I say that the one conclusion we can reach is that while experts disagree as to the fine-spun distinction between these two methods, the effect is to take from Michigan the Representative which under the law it now has and which the Secretary of the Senate has advised the Governor of Michigan it is entitled to. The effect is to add to Arkansas a Representative which by the action of the Clerk of the House of Representatives, under the Constitution, he has already advised Arkansas, some 8 or 10 months ago, she does not have--in other words, that she must elect 6 Representatives in 1942, and Michigan must elect 18. This is an attempt to change existing law, and it is an attempt to change 120 years of history in the make-up of the apportionment of the membership of the House of Representatives between the different States.

87 Cong. Rec. 8078 (1941).

Senator Brown then proposed to amend the bill to apply the change only in 1950, and following apportionments:

If my amendment should be adopted, the Caraway method of equal proportions would become the law; but it would not be applicable to change retroactively the present apportionment of Representatives between the States of Michigan and Arkansas. It would be effective in 1950.

87 Cong. Rec. 8083 (1941). The amendment was defeated.

Despite Senator Brown's comments, and others, concerning the inequity of retroactively applying the method, Congress voted to make the change in method retroactive and require *new* Certificates to be issued.

Section 2b of the Act of November 15, 1941 provided as follows:

(b) If before the enactment of this Act a certificate has been sent to the executive of any State under the provisions of such section 22, as in force before the enactment of this Act, the Clerk of the House of Representatives shall, within fifteen calendar days after the date of enactment of this Act, send a new certificate to such executive stating the number of Representatives to which State is entitled under this section.

Approved, November 15, 1941.

Pub. L. No. 87-291, 55 Stat. 761, 762 (1941) (originally codified as 2 U.S.C. § 2b).

The Clerk was to send a *new* Certificate of Entitlement if such a Certificate had been sent prior to November 15, 1941 (as they had). Thus, the new determinations were made, and new Certificates issued (changing only Michigan and Arkansas).

This is the one occasion Congress was confronted with valid Certificates that it wished to change. The avowed purpose was using a fairer method of apportionment ("equal proportions"). Congress passed a statutory amendment to 2 U.S.C. § 2 which specifically ordered the Clerk to issue amended Certificates.

Congress's action in 1941, and the legislative history surrounding it, confirms that a Certificate cannot be revoked or modified by the Clerk unless and until Congress enacts legislation to that effect.

3. There Should Be Finality in Congressional Apportionment

There should be finality in congressional apportionment because it would be harmful and disruptive to permit endless challenges to political authority. Both federal and state courts recognize that there should be finality in political processes, especially procedures relating to elections. *Morgan v. United States*, 801 F.2d 445, 450 (D.C. Cir. 1986), *cert. denied*, 480 U.S. 911 (1987) ("The pressing legislative demands of contemporary government have if anything in-

creased the need for quick, decisive resolution of election controversies").

Apportionment of congressional seats relates directly to elections, since legislative districts are drawn based on the number of seats awarded to each state. Washington, like many other states, has already expended considerable effort redistricting. To take a seat from Washington now would be disruptive, requiring redistricting efforts to start again, and undermining public confidence in our political process. By the time such efforts could begin, the census figures would have to be updated¹⁵ or would be more out of date than is inevitable under the present process. In the interest of preserving the integrity and finality of the apportionment process, the Clerk should not now be ordered to revoke or modify Washington's Certificate at this late date. These public consequences must surely be considered. By themselves, they justify denying further relief to Montana. *Weinberger*, 456 U.S. at 312.

C. The Action Should Have Been Dismissed Because Washington Is an Indispensable Party

Washington was an indispensable party to this action but could not be joined. Accordingly, the court should have dismissed Plaintiffs' Complaint (Fed. R. Civ. P. 19).

Two separate inquiries should have been conducted. First, are there parties who should be joined, either because their own interests or the interests of the parties might be harmed by their absence? Such parties, referred to as "necessary parties," must be joined if feasible. Fed. R. Civ. P. 19(a).

Second, if a party determined to be necessary under Rule 19(a) cannot be joined, should the action in "equity and good conscience" be dismissed? If the court determines that the action should be dismissed the absent party is labelled "indispensable." Fed. R. Civ. P. 19(b); *Eldredge v. Carpenters*

¹⁵The good news: updated figures would probably end Montana's claim since its growth has been relatively low.

46, 662 F.2d 534, 537 (9th Cir. 1981), *cert. denied*, 459 U.S. 917 (1982). The inquiry is a practical one and fact specific. *Provident Tradesmens Bank & Trust Co. v. Patterson*, 390 U.S. 102, 118-19 (1968).

Rule 19(a) describes two categories of persons who should be joined.

The first category comprises those parties in whose absence "complete relief cannot be accorded among those already parties."

Complete relief cannot be accorded without Washington in this case because the Executive Branch and Congressional Appellants can not give Montana an additional congressional seat without taking it from Washington or some other state.

The second inquiry required by Rule 19(a) concerns prejudice, either to the absent persons or to those already parties. Rule 19(a)(2)(i) provides that a person should be joined if he claims an interest relating to the subject of the action, and the disposition of the action may "as a practical matter impair or impede [his] ability to protect that interest."

Washington was a necessary party under Rule 19(a)(2) because Washington claims an interest in its congressional seat, and the disposition of this action in Montana's favor may impair or impede Washington's ability to protect its seat. Montana's failure to join Washington also runs a risk of "leav[ing] * * * persons already parties subject to a substantial risk of incurring * * * inconsistent obligations. * * *" *Martin v. Wilks*, 490 U.S. at 764.¹⁶

Conflicting claims by beneficiaries to a common trust--House membership in this case--present a textbook example of a situation where one party may be severely prejudiced by a decision in the party's absence. See J. Moore *et al.*, 3A *Moore's Federal Practice*, para. 19.08 at 19-165 (1984)

¹⁶As noted pp. 4-5, *supra* Washington has pending litigation to enjoin the Clerk from changing its Certificate.

("Where the purpose of the suit is the disposition of a fund, a trust, or an estate to which there are several claimants, all of the claimants are generally indispensable.") (quoted in *Wichita & Affiliated Tribes of Oklahoma v. Hodel*, 788 F.2d 765, 774 (D.C. Cir. 1986)).

In *Carey v. Klutznick*, 653 F.2d 732 (2nd Cir. 1981), *cert. denied sub nom.*, *Carey v. Baldrige*, 455 U.S. 999 (1982), the court considered whether other states must be joined in a census case in which New York sought adjustment of population figures.

The *Carey* court, 653 F.2d at 736, stated that "House membership is a fund in which fifty States have an interest. No State's share can be increased without adversely affecting at least one other State. * * * The adversely affected States therefore fall within the category of parties who should be joined in the instant litigation if feasible." *Carey*, 653 F.2d at 737.

Since Washington is "necessary" and wasn't joined, the court should have determined whether in "equity and good conscience" the case should be dismissed under Fed. R. Civ. P. 19(b).

Prejudice to any party resulting from a judgment tips the balance towards dismissal of the suit. Washington or some state would be prejudiced if Montana prevails and takes one of Washington's congressional seats.¹⁷ The ability to intervene is not a factor that lessens prejudice if it requires waiver of immunity. *Confederated Tribes of Chehalis Indian Reservation v. Lujan*, 928 F.2d 1496, 1500 (9th Cir. 1991). Nor is amicus status sufficient to lessen prejudice. *Makah Indian Tribe v. Verity*, 910 F.2d 555, 560 (9th Cir. 1990).

Only if an adequate remedy can be awarded without the absent party may the suit go forward. *Makah*, 910 F.2d at 560; *Wichita*, 788 F.2d at 777; *Idaho ex rel. Evans v. Ore-*

¹⁷"Rule 19 speaks to possible harm, not only to certain harm." (Emphasis in original.) *Aguilar v. Los Angeles Cy.*, 751 F.2d 1089, 1094 (9th Cir. 1985).

gon, 444 U.S. 380 (1980). Although the United States was not indispensable in that case, if either *state* had been absent the case ought to have been dismissed.

No shaping of relief or remedy is possible to lessen prejudice because the relief Montana ultimately seeks is all or nothing--an award of an additional congressional seat, which must necessarily be taken from Washington or another state.¹⁸

Here, the plaintiffs will have an adequate remedy if the action is dismissed; Montana's exclusive remedy is (was) in Congress.

Since Washington is an indispensable party to this litigation and can not be joined, the court below should have dismissed Appellees' claims.

II. UNDER THE APPROPRIATE CONSTITUTIONAL STANDARD, CONGRESS'S SELECTION OF THE "EQUAL PROPORTIONS" METHOD MUST BE UPHeld.

The history and language of article I, section 2 do provide constitutional standards to apply to congressional reapportionment among the states:

First: No state may be denied a representative: "each state shall have a least one representative." U.S. Const. art. I, § 3.

Secondly, the apportionment must be tied to the population of the states "according to their respective numbers." U.S. Const. art. I, § 2. A correlative test that may be derived from this text (and its history) is that for any pair of states, no state may be assigned more representatives than a state

¹⁸Montana could, of course, ask the Court to order expansion of the House. As noted (p. 2, n.3 *supra*), this may require more than one addition since other states have a better claim than Montana.

with a population larger than its pair.¹⁹ Arguably, the same treatment of fractional remainders is required (a state with .40 like Montana is constitutionally barred from getting a seat before a state with a higher remainder like Washington or Massachusetts).

Any reapportionment meeting these tests should pass constitutional scrutiny. Clearly, the current "equal proportions" method meets those standards.

The sole issue raised in this litigation is the assignment of representatives to states with fractional remainders. None of the historical formulas considered by Congress have ever resulted in one state getting no representatives, or fewer representatives than a less populous state ("equal proportions" can not do so). Therefore, no apportionment approved by Congress has been unconstitutional.

A case quite close to Montana's was specifically discussed at the Constitutional Convention: "A State might have one Representative only, that had inhabitants enough for 1 1/2 or more, if fractions could be applied. * * * 2 *The Records of the Federal Convention of 1787*, 358 (Farrand ed. 1937) (statement of Oliver Ellsworth).²⁰ Here Montana (with 1.404) has a lesser claim than Ellsworth's fictional state described (1.5 plus).

Issues of fairness and equity, such as quota (n.18, above) are policy questions for Congress. These issues are textually committed to Congress. The power to apportion "irresistibly flows" from Congress's article I, section 2 pow-

¹⁹A third test of fairness has been proposed since the time of the Constitution; that of meeting "quota" or the "Rule of Three"; a state must receive a share equal to its percentage of the national population times the total number of representatives rounded either up or down to a whole number (M. Balinski & H. P. Young, *Fair Representation* 14 (1982)).

²⁰The context was a proposal to tie taxes to the representatives. By the time of this statement, the apportionment issue "Great Compromise," had been resolved (described briefly *infra*, p. 22).

ers. *Prigg v. Penn*, 41 U.S. at 619. Such issues are excluded from judicial review. *Japan Whaling*, 78 U.S. at 2860.

It will be shown below that "equal proportions" is best if judged by such standards, but they are not constitutionally-derived standards. With specific regard to the issue of "quota," it can be mathematically demonstrated that the Dean method has a higher probability of violating quota than the present "equal proportions" method (*supra*, p. 20).

Article I, section 2, clause 3 of the United States Constitution provides that representatives be apportioned among states according to numbers. The Framers selected numbers rather than wealth or property as the basis for allocating representatives among the states. 1. Farrand, p. 606. It reflected the demand of the large states that representation in one of the two houses be based on size. The primary command of article I, section 2, according to the Framers, is that each large state gets more representatives than every smaller state. "The proportional representation in the first branch was conformable to the national principle & would secure the large States agst. the small." 1. Farrand, p. 468 (Statement of Elsworth).

Franklin described the basis of the Great Compromise:

If a proportional representation takes place, the small States contend that their liberties will be in danger. If an equality of votes is to be put in its place, the large States say their money will be in danger. When a broad table is to be made, and the edges (of planks do not fit) the artist takes a little from both, and makes a good joint.

1. Farrand, p. 488. Article I, section 2 was intended to meet the demand of the large states for a population-derived House and thereby induce them to join the "broad table."

The fraction problem inherent in congressional apportionment has no single solution--Congress has handled it for 200 years without judicial interference. The Framers ignored the problem in focusing on the issue of balancing be-

tween large and small states (1. Farrand, pp. 559-561, 602). So also did the first Congress, by selecting a round number of population per representative, and utilizing the Jefferson method to apportion between states until 1842.²¹

The choice of method to deal with fractional remainders is determined by Congress's selection of the goal. It requires choosing between intricate, somewhat incomprehensible (to the layman) mathematical models and formulae.

This litigation can and should be resolved without resorting to square roots, harmonic means and major fractions; without the Dean, Hill, Webster, and Vinton methods. Very simply, this Court need only recognize that no constitutional principle is implicated in Congress's choice of a solution to the fractional remainder problem (so long as the constitutional imperatives discussed above are satisfied).

A. **Wesberry Tests Do Not Apply to Congressional Reapportionment of Representatives Among the Several States**

The district court concluded that article I, section 2 "provides no textual basis upon which to distinguish the duties of Congress from the duties of state legislatures." (J.S., 9a-10a)

This conclusion is flawed, however. *Wesberry* dealt with clause 1 of article I, section 2; Apportionment among the states deals with article I, section 2, clause 3.

Not only does the Constitution not mandate application of *Wesberry*'s one man one vote principle in apportioning between the states, it forbids it in requiring "each state shall have at least one representative," no matter how small its population, *and* in requiring apportionment "among the

²¹Act of Apr. 14, 1792, 1 Stat. 253 (one representative per 33,000 persons); Act of June 14, 1802, 2 Stat. 128 (33,000); Act of Dec. 21, 1811, 2 Stat. 669 (35,000); Act of Mar. 7, 1822, 3 Stat. 651 (40,000); Act of May 22, 1832, 4 Stat. 516 (47,700). (J.S., p. 5, n.5.)

several states," which inevitably raises the fractional remainder problem to be dealt with by Congress.²²

The first and all early Congresses dealt with the problem by disregarding it, using the Jefferson method, which discards fractional remainders. That this was not violative of any constitutional mandate is confirmed by the provision of a statistical method to calculate *states'* representation by setting a fixed (round number) of population per representative; "one representative for every thirty thousand." Fractional remainders were inevitable in such a calculation method.

The court cites Wilson comments to the contrary (J.S., 10a). His discussion was part of the early debate over whether representation would be per state (as in the Articles of Confederation) or related to population. Wilson surely was not advocating any one man one vote precise *Wesberry* standard for interstate apportionment in 1790. None of the founders ever advocated such a standard, either at the Convention, or later in Congress. As noted in the Elsworth statement quoted above (p. 22), the contrary result was anticipated; a state like Montana, even with a population equal to 1.5 representatives would get only one.

1. Congress Acted in Good Faith in Selecting "Equal Proportions"

Assuming *arguendo* that the *Wesberry* analysis is applicable by analogy to this case, the first burden is on the challenger. Montana must show "that the population differences were not the result of a good-faith effort to achieve equality." *Karcher*, 462 U.S. at 730, 731.

In defense, the appropriate measure of equality to be applied and whether the apportionment meets it "as nearly as is practicable" then must be shown. *Wells v. Rockefeller*, 394 U.S. 542, 544 (1969).

²²If state borders could be disregarded, there would be no problem.

Washington vigorously disputes that Montana has shown Congress to have acted in bad faith--or failed to act in good faith. The "equal proportions" method was chosen after 150 years of experimentation and consideration of alternate apportionments, and implemented as recommended by a non-partisan National Academy of Sciences committee (NAS) and the vast weight of scholarly analysis. It can not be suggested that the method was selected to discriminate against, or prejudice Montana, or its various plaintiff representatives in this action since it was selected with no idea of the impact on Montana.

If this Court determines that it (or a federal court) rather than Congress ought select the method of apportionment for the United States House, the recommendations of the NAS justification for its application, argue strongly in favor of the method of "equal proportions" as meeting equitable requirements "as nearly as is practicable."

B. "Equal Proportions" Is the Best Method of Reapportionment for Congress²³

1. Historical Scientific Support for "Equal Proportions"

On several occasions, Congress has relied upon the expertise and objectivity of NAS to advise on the best formula to apportion. On each occasion NAS concluded the "equal proportions" method was superior. NAS' first report concluded "it [equal proportions] occupies mathematically a neutral position with respect to emphasis on larger and smaller states." (*Report of NAS, Fiscal Year, 1928-29*, pp. 20-23, quoted in Ernst Decl. J.A. 24). In 1948, a NAS report concurred with the earlier conclusions (*Morse, Report to the President of the National Academy of Sciences (1948)*).

²³The label is a conclusion from *Congressional Reapportionment*, a 1929 article in 42 Harv. L. Rev. 1014 at 1020.

The "equal proportions" method had actually been publicly debated, analyzed and compared with alternatives for several years preceding the 1929 report.

One earlier analysis compared "equal proportions" and each of the other viable alternatives (including "harmonic means" or the Dean method) and concluded "both mathematical and political reasons point to the Method of Equal Proportions as the best plan for a just apportionment." 42 Harv. L. Rev. at 1047.²⁴

In 1970, a House committee recommended retention of the "equal proportions" method. H.R. Rep. No. 1314, 91st Cong. 2d Sess. (1970).

In 1981, congressional testimony considered eight different alternatives (e.g. testimony of Leon Gilford before House Post Office and Civil Service Committee, Sub-Committee on Census and Population June 11, 1981 at p. 69 lists the eight). No change from "equal proportions" was recommended. This was after *Wesberry* and most of the cases Montana relied upon.

2. Advantages of "Equal Proportions" Over The Dean Method

The lower court's preferred method, the Dean method, has numerous severe disadvantages compared with "equal proportions." Among them, the Dean method does not (and is not intended to) minimize differences in each person's share of a representative (Ernst Decl. J.A., p. 8). This test, to minimize differences in each person's share of a representative:

[I]s a better test of 'one person one vote' for districts between states since it measures the portion of a vote (member) to which a person is entitled in the House
* * *

²⁴Mathematical treatises and articles during the same period evaluating the methods and concluding that equal proportions was the most equitable methodology are listed in *Fair Representation*, p. 182, nn. 13, 14, 16, 19, 21.

Ernst Decl., J.A. p. 26.

In arriving at a contrary decision, the district court accepted and relied upon the findings of one affiant. (See citations to "Tiahrt" (J.S., p. 13a)). His testimony is contrary to that of the other witnesses (and to the weight of prior mathematical analysis e.g., n.22). The dissent accurately notes he was quite wrong on at least one assertion; his claim that "the Dean method produces the smallest variance or standard deviation." Tiahrt Affidavit, (Mot. Affirm, App. 15). It was pointed out by countering affidavit, and later conceded by Montana (J.S., p. 31a), that the "equal proportions" (Hill method) formula produces the least variance.²⁵

When all states are considered, "equal proportions" is far superior (total variance 661,320,400 with, "equal proportions"; 681,742,400, with the Dean method). (Ernst Decl., J.A., p. 29.)

Not only was (is) this result true for the 1990-91 census, but "it can be shown mathematically that the 'equal proportions' method minimizes this (total) variance among all apportionment methods and all sets of populations." (Ernst Decl., J.A., p. 30.)

Even the variance total between the two states of Washington and Montana is less under "equal proportions" (495,438). Under the Dean method it is 649,492. This is only a two state comparison, of course.

The dissent also noted the inequitable application in this case of the Dean method. Under the present allocation a Washington resident has a share of a representative 48% larger than a Montana resident (and a Montana district is 48% larger than Washington). With the Dean method, and a transfer of one seat, Washington's districts become 52.1% larger than Montana's (and the share of a representative 52.1% less) (J.S., p. 29a).

²⁵Summary judgment may have been inappropriate, to the extent the court viewed any of Montana's expert's assertions as "facts" they were contested. His vitae indicates he has no prior expertise in the area of elections or census statistical analysis. (Mot. Affirm, App. 16.)

On a higher level of abstraction, the methods have been analyzed for bias ratio²⁶ (favoring small versus large states) as if they had been applied over the whole of United States history (19 reapportionments, as of 1980). The result is shown in Fair Representation, p. 124 Table A5.1. The Dean method resulted in a 56.6% bias ratio; "equal proportions" (the Hill method) only 54.6% (the smaller score shows less bias).

Such a historical overview is appropriate when considering adopting any method for long-range application.

Although neither system violates "quota" this decade, it is possible to calculate the theoretical probability of violating quota (per 1000 "problems"). The results are Dean method: 15.40; Hill method: 2.86 (Fair Representation, p. 81 Table 10.3). A violation of quota is, arguably, one of the violations of the constitutional constraints (see p. 20, n.18). It is proper that Congress or a court select a method for long-term application that offers the lower probability of such quota violation.

CONCLUSION

For the above reasons, and those set forth in the Brief of the United States, the judgment below must be reversed and the action ordered dismissed.

Dated this 15th day of January, 1992.

Respectfully submitted,

KEN EIKENBERRY

Attorney General

JAMES M. JOHNSON*

Sr. Assistant Attorney General

CAROLE A. RESSLER

Assistant Attorney General

Attorneys for Amicus

**Counsel of Record*

²⁶Counting, for each census year, the pairs of states in which smaller states would have been favored and dividing by total pairs.

APPENDIX A

Redistricting Update

as of 1/12/92



Congressional Plan Completed

Notes:

- Plans from CA, NC, VA and MS must receive approval from the U.S. Justice Department before becoming law.
- The Justice Department has objected to the NC Congressional redistricting plan.
- Alaska, Delaware, Montana, North Dakota, South Dakota, Vermont and Wyoming have only one congressional seat and are not required to redistrict.

Source: National Conference of State Legislatures (updated)

APPENDIX B

Certificate of Entitlement



HOUSE OF REPRESENTATIVES

OFFICE OF THE CLERK

WASHINGTON, D.C.

I, Donnal K. Anderson, Clerk of the House of Representatives of the United States, Hereby Certify, Pursuant to the Provisions of Title 2, United States Code, Section 2a (b), That the State of

WASHINGTON

Shall be Entitled, in the One Hundred Third Congress and in Each Congress Thereafter Until a Subsequent Reapportionment Shall Take Effect Under Applicable Statute, to

NINE REPRESENTATIVES

in the House of Representatives of the Congress of the United States.



In Witness Whereof I Hereto Affix My Name and the Seal of the House of Representatives of the United States of America this Sixteenth Day of January, Anno Domini 1991, in the City of Washington, District of Columbia

Donnal K. Anderson

CLERK OF THE HOUSE OF REPRESENTATIVES
OF THE UNITED STATES

FEB 11 1992

OFFICE OF THE CLERK

No. 91-860

**In the
Supreme Court of the United States.**

October Term, 1991

UNITED STATES DEPARTMENT
OF COMMERCE, et al.,
Appellants

v.

STATE OF MONTANA, et al.,
Appellees

On Appeal From the United
States District Court
for the District of Montana

**BRIEF OF THE COMMONWEALTH
OF MASSACHUSETTS AS AMICUS CURIAE
IN SUPPORT OF APPELLEES**

Scott Harshbarger
Attorney General
of Massachusetts

John P. Driscoll, Jr.
Edward P. Leibensperger
Neil P. Motenko
Special Assistant Attorneys
General
Nutter, McClennen & Fish
One International Place
Boston, MA 02110
(617)439-2000

Dwight Golann*
Steve Berenson
Assistant Attorneys General
One Ashburton Place
Boston, Massachusetts 02108
(617) 727-2200, ext.2068

*Counsel of Record

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91-860

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BRIEF OF THE COMMONWEALTH
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IN SUPPORT OF APPELLEES

INTEREST OF AMICUS CURIAE
AND SUMMARY OF ARGUMENT

The Commonwealth's Interest. In
this case, the State of Montana has
challenged the formula, known as the
"Hill" method, used in each census since

1941 to apportion seats in the United States House of Representatives among the States. 2 U.S.C. 2a. The district court ruled the Hill method unconstitutional. J.S. App. 1a-34a. The Commonwealth of Massachusetts, as amicus curiae, supports this result and submits this brief in support of the State of Montana.

To the extent the district court and the State of Montana favor use of the so-called "Dean" method of apportionment, however, the Commonwealth does not concur. As amicus curiae and in separate proceedings pending before a three-judge court in the District of Massachusetts, the Commonwealth advocates a different, well-established method of apportionment -- the "Webster" or "major fractions" method. Under the

Webster method, Massachusetts will retain the eleventh Congressional seat it stands to lose under the 1990 Census. The Commonwealth of Massachusetts, therefore, has an important interest in the outcome of this litigation.

The Massachusetts Proceedings. In Commonwealth of Massachusetts v. Mosbacher, et al., C. A. No. 91-11234-WD (D. Mass.) (hereinafter the "Massachusetts proceedings"), the Commonwealth sued the Secretary of Commerce, the President of the United States, and other federal officials on May 1, 1991, challenging the use of the Hill method of apportionment and advocating use of the Webster method. Based in part on a Stipulation of Facts, lodged with this Court (hereinafter

"Stip.") and into which the appellants herein entered, the parties filed cross-motions for summary judgment. These were heard on December 6, 1991 by a three-judge panel which has those motions under advisement. Among the affidavits submitted by the Commonwealth in those proceedings is an analysis performed by one of the nation's preeminent experts on congressional apportionment, Professor H. Peyton Young of the School of Public Affairs at the University of Maryland at College Park. Professor Young co-authored the leading text on apportionment history and formulas, which has been cited repeatedly in both parties' briefs to this Court and as the sole treatise cited by the district court: M.L. Balinski and H.P. Young, Fair Representation: Meeting the Ideal of

One Man, One Vote (New Haven: Yale University Press, 1982) (hereinafter "Fair Representation"). This volume, together with Professor Young's curriculum vitae, his affidavit in support of this brief (hereinafter "Young Aff."), and a Congressional study, D.C. Huckabee, House Apportionment Following the 1990 Census: Using the Official Counts, CRS Report for Congress (Feb. 4, 1991) (hereinafter "CRS Report for Congress"), have been lodged with the Court.

Summary of Argument. The history and purpose of Article I, Section 2, as explained in Wesberry v. Sanders, 376 U.S. 1 (1964) and its progeny, require "that as nearly as is practicable one man's vote in a congressional election is to be worth as much as another's."

Id. at 7-8. In the context of intrastate apportionment, this goal is achievable by equalizing district sizes, which gives each person an equal share of his or her representative. Karcher v. Daggett, 462 U.S. 725, 730-31 (1983). In the context of interstate apportionment, however, discrepancies in district size are inherent in the constitutional requirements that every state have at least one congressional seat and no congressional district may cross a state boundary. The constitutional principle articulated in Wesberry of equalizing the value of each person's vote requires, therefore, that a method of apportionment must come as close as practicable to equalizing each person's share of a representative. The current Hill method of apportionment

(2 U.S.C. 2a) demonstrably fails to meet the goal of achieving, as nearly as practicable, equal shares of a representative for each person. Another method, Webster's, is superior.

In addition, the formula used for congressional apportionment should not be biased toward either more or less populous states. The use of a biased formula violates the principles of the Great Compromise of 1787. Both the Hill and the Dean methods are inherently biased toward less populous states.

The Webster method of apportionment brings each person's share of a representative as near equality as possible regardless of the state in which they reside. Moreover, Webster's method is not biased toward either more or less populous states.

Accordingly, the Commonwealth respectfully requests that this Court affirm the district court's judgment that 2 U.S.C. 2a is unconstitutional and mandate the use of the Webster method to reapportion the House based upon the 1990 census.

ARGUMENT

I. **ARTICLE I, SECTION 2 OF THE CONSTITUTION REQUIRES APPORTIONMENT OF CONGRESSIONAL DISTRICTS SO THAT EACH CITIZEN HAS EQUAL REPRESENTATION "AS NEARLY AS PRACTICABLE."**

A. **The Exacting "One-Person, One-Vote" Requirements For Intrastate Apportionment Of Congressional Districts Apply Also To Apportionment Of Such Districts Among The States.**

The Apportionment Clause of the Constitution mandates that seats in the House of Representatives "be apportioned

among the several States ... according to their respective Numbers." Art. I, §2, cl. 3. Article I, Section 2 and the underlying principle that apportionment of House seats shall be based on population grew out of the Great Compromise at the 1787 Constitutional Convention. J.S. App. 1a-34a, at 7a (citing 1 Records of the Federal Convention of 1787 488 (Farrand Ed. 1911)). The Great Compromise resolved a bitter conflict between large and small states that divided the Convention. Representatives from small states favored a national assembly with equal representation for all states; those from larger states argued for representation based on population. The Great Compromise created the Senate, in which citizens of small states are

better represented than voters from large states, and the House, where all citizens have equal representation.

The Supreme Court has consistently interpreted the Apportionment Clause to require the apportionment of congressional districts within states to achieve the goal of equal representation for its citizens. Karcher v. Daggett, 462 U.S. 725, 730 (1983); Wells v. Rockefeller, 394 U.S. 542, 544 (1969); Wesberry v. Sanders, 376 U.S. 1, 18 (1964). Article I, Section 2 commands that this be accomplished "as nearly as is practicable." Wesberry, 376 U.S. at 7-8; Karcher, 462 U.S. at 730.

To achieve the goal of equal representation "as nearly as practicable," this Court has applied the most exacting standards to the

apportionment process. The "unusual rigor" of the Wesberry standard in the context of intrastate apportionment under Article I, Section 2 "permits only the limited population variances which are unavoidable despite a good-faith effort to achieve absolute equality, or for which justification is shown." Karcher, 462 U.S. at 730, 732. See also White v. Weiser, 412 U.S. 783, 790 (1973); Kirkpatrick v. Preisler, 394 U.S. 526, 531 (1969). Not even de minimis population variations are permitted if they can practicably be avoided. Karcher, 462 U.S. at 734. Political compromises are not compatible with the goal of equality of votes. "[T]he rule is one of 'practicability' rather than political 'practicality.'" Kirkpatrick, 394 U.S. at 533.

That this Court has been so protective of the right to an equal vote reflects the fundamental importance of the right to vote itself:

No right is more precious in a free country than that of having a voice in the election of those who make the laws under which, as good citizens, we must live. Other rights, even the most basic, are illusory if the right to vote is undermined.

Wesberry, 376 U.S. at 17; see Yick Wo v. Hopkins, 118 U.S. 356, 370 (1886).

Although these and the pending Massachusetts proceedings present the issue as a matter of first impression, the principles of Wesberry necessarily apply to interstate, as well as intrastate, apportionment. This result inheres in the importance of the right to vote; the text of Article I, Section

2; and this Court's prior apportionment decisions. Indeed, if Article I, Section 2 requires state legislatures to come "as nearly as practicable" to equality in apportioning House seats, as it clearly does, then there is no defensible argument for not holding Congress to the same standard. The very text of Article I, Section 2 applies by its terms to apportionment "among the several States." (Emphasis added.) It was the Great Compromise itself, predominantly concerned with the allocation of representation among the States, that spawned Article I, Section 2 and its underlying principle that apportionment of House seats shall be based on population. Wesberry, 376 U.S. 1, 13; J.S. App. 7a. The district court correctly noted that the rationale

underlying Article I, Section 2 and articulated in Wesberry "has more relevance to the national apportionment issue than to intrastate redistricting." J.S. App. 10a.

The government attempts to avoid this result by claiming that Wesberry rests only on Clause 1 of Article I, Section 2 and, thus, applies only to intrastate apportionments. (Appellants' Br. at 44-45) This attempt to parse Clauses 1 and 3 of the Apportionment Clause finds no support whatsoever in Wesberry. To the contrary, the Court quotes and construes both clauses together -- "that Representatives shall be chosen 'by the People of the several States' [cl. 1] and shall be 'apportioned among the several States . . . according to their respective

Numbers' [cl. 3]" (376 U.S. at 17) -- as a cohesive whole; and it does so "in light of" the history of the Constitutional Convention and the Great Compromise, with its predominant concern over interstate apportionment. 376 U.S. at 9-17.^{1/}

This unduly narrow reading of Wesberry is the logical extension of the government's broader but cavalier argument that any apportionment method "rationally tied to population" (Appellants' Br. at 24) or "plausibly" related to state populations (id. at 28) will pass muster. The argument, however,

^{1/} Justice Harlan, in dissent, recognized that the majority in Wesberry relied on Clause 3, as well as Clause 1, for its holding. 376 U.S. at 26.

misses the fundamental constitutional point to which the "as nearly as practicable" requirement is addressed: the right of each citizen to equal representation.^{2/} From the Constitutional Convention to Wesberry to Karcher to the present, it is the representation of the "people as individuals, and on a basis of complete equality for each voter" that the Constitution protects. Wesberry, 376 U.S. at 14.

The Commonwealth thus agrees with the district court that "there is no principled reason why" the standards set forth in Wesberry should not apply to

^{2/} There are formulas which may be "rationally tied to population" but produce results which diverge greatly from the goal of equal representation. See Young Aff. ¶9.

interstate redistricting.^{3/} J.S. App. 9a. Because of the mandates that every state must receive at least one seat and no district may cross a state boundary, absolute equality of representation is impossible. Art. I, §2, cl. 3; J.S. App. 9a; 2 J.A. 69-70. These constitutional mandates, however, in no way suggest, much less require, that the goal of equal representation "as nearly as practicable" be abandoned in the context of apportionment of congressional districts among the states. To the contrary, the "as nearly as practicable" standard has that much more meaning in this context. It

^{3/} The Commonwealth hereby adopts by reference the State of Montana's argument that this Court should affirm that portion of the district court holding that applies the "one-person, one-vote" mandate of Wesberry to the case at bar. Appellees' Br. at 30-34.

evolved in this Court precisely because absolute equality in legislative apportionment is virtually impossible. Karcher, 462 U.S. at 730.

Indeed, this standard finds its roots in the early history of interstate apportionment. Daniel Webster observed in 1832 that the Constitution requires "Congress to make the apportionment of Representatives among the several States according to their respective numbers, as near as may be. That which cannot be done perfectly must be done in a manner as near perfection as can be." D.

Webster, The Writings and Speeches of Daniel Webster, 107-09 (1903) (quoted at J.S. App. 11a, n. 2) (emphasis in the original); Young Aff. ¶3.

The Framers thus intended, and the Constitution mandates, equal

representation "as nearly as practicable" in the interstate apportionment of House seats. As explained below, because it equalizes the value of each person's vote, or more precisely, each voter's share of a representative, as nearly as practicable, the Webster method is the only formula that meets this constitutional command.

B. In Interstate Apportionments, Equalizing Each Voter's Share Of A Representative Achieves The Wesberry Ideal.

There are at least three ways in which the constitutional command of representation based on population could be translated into a statistical test for allocation formulae: (1) variability from the ideal number of persons per district, (2) variability from the ideal share each person should have of his representative's vote, or (3) variability of nearness to quota.

J.S. App. 27a, n.4 (O'Scannlain, J., dissenting) (quoting H.Rep. No. 18, 97th Cong., 1st Sess. 58 (1981)).

Among these three measures of inequity which may serve as the criteria for apportionment formulas, the district court applied the first, and favored (but did not order) the Dean method in an effort to minimize the absolute differences in the size of congressional districts. J.S. App. 13a-16a. This follows the approach in Karcher, where the Court held that the proper approach in intrastate apportionments is to reduce or eliminate population differences among congressional districts. 462 U.S. at 730.

Karcher's focus on equal district sizes achieves in the intrastate context the paramount goal of Wesberry: it

ensures that each member of Congress represents the same number of people as nearly as practicable, thereby equalizing the value of each person's vote. Young Aff., ¶19. In the interstate context, however, attempting to achieve equal district sizes does not best effectuate this paramount goal. Because of the constraints imposed by Article I, that no district may cross a state boundary and each state must receive at least one seat, substantial discrepancies in district size among the states are inevitable. It is thus impossible to have each House seat represent the same number of people. J.S. App. 9a; 2 J.A. 69-70; Young Aff. ¶19. For mathematical reasons explained by Professor Young, interstate apportionment formulas which attempt to

equalize district sizes produce illogical results and do not necessarily treat individuals equitably. Young Aff. ¶19-24. To the contrary, they each tend to bias the outcome in favor of small states, and yield "reversals," an anomaly (discussed at pt. II, A, 2, infra) which violates the "near as may be" standard. Young Aff., ¶8.

Minimizing discrepancies in district sizes tends to produce similar numbers for each representative; but the Constitution does not protect the right of each Congressman to have equal numbers of people in his or her district.^{4/} Young Aff. ¶40.

^{4/} The government's own expert agrees that, although "[c]ontrolling for average district size ensures equity in the average number of persons

(footnote continued)

The goal in apportioning Congressional districts is instead to make each person's vote "worth as much as another's." Wesberry, 376 U.S. at 8. By definition, this requires a per capita or per voter standard. This necessitates focus on each voter's "share of a representative" (the second test mentioned in Judge O'Scannlain's

(footnote continued)

represented by each member of the House . . . for intra-state districts, . . . Controlling for each person's share of a representative ensures equity in the average number of members of the House that represent each person. It can be argued that the latter is a better test of 'one person, one vote' for districts between states since it measures the portion of a vote (member) to which a person is entitled in the House." Ernst Decl. ¶17 (1 J.A. 25-26). The government also cites with favor Daniel Webster himself, who rejected the district-size test in favor of a focus on the state's "overall share of representation in the House." Appellants' Br. at 38-39 n.31.

dissent in the district court). Young Aff. ¶19-23. In other words, only the "share-of-a-representative" principle truly expresses the "one-person, one-vote" standard, a per capita standard, enunciated in Wesberry and its progeny.^{5/}

The government itself makes this case. Not only does its expert challenge the appropriateness of average district size as a proper measure of equity in interstate apportionment (see n.4, supra), but it cites with favor

^{5/} The district court attempted to minimize differences (there, actual differences) between actual district sizes and the ideal. J.S. App. 13a-15a. This focus, on the number of representatives per person or per district (the Dean method), is misplaced. As noted below, the Dean method shares deficiencies with the Hill method, but suffers from them to an even greater degree. (See pt. II, C, infra.)

the endorsement by the Commonwealth's expert, Professor Young, of the "per capita" standard as "the most natural" way to interpret the Wesberry goal of equalizing the value of each vote. Appellants' Br. at 46, n.41 (citing Fair Representation, at 53.)

A historic, mathematically sound and well-accepted method of expressing the share-of-a-representative test is to approach "as near as may be" a state's House seat quota. The quota is the precise number of congressional seats to which a state would be entitled if fractional seats were allowed (e.g., 10.51 or 4.23 seats).^{6/} As a matter

^{6/} This is the third test mentioned by Judge O'Scannlain. The House seat quota is found by dividing the national-average-size congressional district in a given apportionment into the apportionment population of each state. Appellants' Br. at 4, n.2.

of arithmetic, a state's quota is simply the sum of the shares of a representative of the individuals within that state. The quota is thus effectively an aggregate measure of each individual's share of a representative. Young Aff. ¶5.

If states could receive their respective quotas, apportionments would be ideal. All persons would have the same share of a representative.^{7/} While achieving quota in interstate apportionments is impossible, the goal of equal representation is only approached if the apportionment comes as near to quota as possible.

Just as the courts, in the context of intrastate apportionment, have

^{7/} In addition, all district sizes would be perfectly equal.

required equal representation as nearly as practicable, to the point of issuing court-ordered apportionment plans toward this end,^{8/} so this Court should require Congress to use the Webster method, the only one which, in an interstate context, equalizes as nearly as practicable the value of each person's vote.^{9/}

^{8/} Karcher, 462 U.S. at 734, n.6, and cases cited therein.

^{9/} See pt. III, A, infra.

II. THE WEBSTER METHOD EFFECTUATES THE CONSTITUTIONAL IDEAL OF ONE PERSON, ONE VOTE.

A. The Webster Method Is Superior To All Others In Equalizing The Value Of Each Person's Vote.

1. The Webster Method, Deeply Rooted In The History of Apportionment Formulas, Equalizes Each Voter's Share Of A Representative As Nearly As Practicable.

Over time, Congress has legislated the use of four different formulas to calculate reapportionment.^{10/} Stip. 60-63; Appellants' Br. at 4-14. The Webster method is the most deeply rooted among divisor methods in the history of

^{10/} These formulas, and the history of apportionment methods, are described in more detail at Stip. 60-70, and Appellants' Brief at 5-14.

congressional apportionment.^{11/} Also known as the "method of major fractions," it was used to apportion Congressional seats in 1840, 1910 and 1930.^{12/} Stip. 62, 64, 66; Appellants' Br. at 6-9, 13-14. By

^{11/} The Webster method, along with the Hill, Adams and Dean methods, is a "divisor" method of apportionment. To apportion a fixed number of seats using a divisor method, a national average district size is chosen as the divisor. The divisor is then divided into the population of each state to obtain a quota. Stip. 73, 74. Every method used or considered by Congress since 1790 has been a divisor method, with the exception of the "Hamilton-Vinton" method. See Appellants' Br. at 11-12. Congress abandoned the Hamilton-Vinton method in 1900 because, like all non-divisor methods, it is subject to the "Alabama paradox," an anomaly under which it is mathematically possible that a state's allocation of House seats could be reduced even though the size of the House was increased and the population of all states remained constant. Stip. ¶63; Appellants' Br. at 8.

^{12/} There was no apportionment in 1920.

contrast, the Hill method was not used until the 1940 apportionment, and the other two methods considered by the district court, the Dean and Adams methods, have never been used at all.

The Webster method represents the solution proposed by its namesake to the apportionment problem:

Let the rule be that the population of each state be divided by a common divisor, and, in addition to the number of members resulting from such division, a number shall be allowed to each State whose fraction exceeds a moiety of the divisor.

The Writings and Speeches of Daniel Webster, National Edition (Boston: Little Brown, 1903, Vol. 6), at 120; Young Aff. ¶7.

The superiority of the Webster method and, thus, its status as the only constitutional method of apportionment,

lies in a simple but dispositive proposition: If the constitutional goal underlying the one-person, one-vote standard is to make "as nearly as is practicable one man's vote in a congressional election . . . worth as much as another's" (Wesberry, 362 U.S. at 7-8; see pt. I, B, supra), the Webster method effectuates this per capita test by "minimiz[ing] the differences in representation in the House when those differences are expressed as each resident's share of a representative on an absolute basis." CRS Report for Congress at 19; Appellants' Br. at 46 n.41; Young Aff. ¶30.^{13/} The Webster method does

^{13/} Concededly, in pairwise comparison tests (Young Aff. ¶13), the Hill method reduces the relative difference in

(footnote continued)

so by minimizing the inequality between each individual's ideal share of a representative and his or her actual share as the result of the apportionment. Young Aff. ¶44. The Webster method also minimizes the inequality in the relative representation given to residents of each pair of states, when matched against each other. This is true both in absolute and percentage terms. Young Aff. ¶8, 14, 30, 38, 42, 44.

(footnote continued)

representation per capita. But the relative measure is not only inferior to the absolute or percentage measure (see Young Aff. ¶33-37); it leads to apportionments that are systematically biased against more populous states and that deviate from quota to a greater extent than necessary (pt. II, B, infra, and Young Aff. ¶27-37, 45), and it departs from the test of deviation from the ideal employed by the case law (see Karcher, passim).

Even Dr. Ernst, the expert retained by the Department of Commerce in both the Montana and the Massachusetts proceedings, agrees with Professor Young that the Webster method is "optimal" in minimizing differences between each person's share of a representative.^{14/}

2. The Webster Method Achieves The One-Person, One-Vote Ideal By Staying Nearest To Quota.

As noted above, staying near the quota (the third test enunciated by

^{14/} Controlling for each person's share of a representative ensures equity in the average number of members in the House that represent each person. It can be argued that the [Webster method] is a better test of one-person, one-vote for districts between states since it measures the portion of a vote (member) to which a person is entitled in the House.

Ernst Decl., ¶17 (1 J.A. 25-26).

Judge O'Scannlain (J.S. App. 27a, n.4)) is an alternative and historic measure of how well a method achieves equality in shares of a representative. (See pt. I, B, supra.) The Webster method is the only method that brings every pair of states as near as possible to their quotas in both absolute and percentage terms. Young Aff. ¶30, 42. This was undisputed in the Massachusetts proceedings.

In the process, the Webster method avoids a phenomenon which every other divisor method produces: the anomaly known as a "reversal". A reversal is a situation where a state's quota of seats in the House is rounded up even though its fractional component is below .5 while, in the same apportionment, another state's quota is rounded down

even though its fractional component is above .5. Young Aff. ¶8. A method of apportionment producing reversals thus does not meet the "near as may be" standard. Young Aff. ¶26.

The Hill method, by contrast, yields striking reversals. For example, in 1970, Hill's method rounded up South Dakota (quota 1.435) while it rounded down Connecticut (quota 6.503). If one seat were taken away from South Dakota and given to Connecticut, then both states would be closer to their exact quotas. Young Aff. ¶3. Had the Hill method been in effect in 1920, it would have produced an even more striking reversal: rounding down Virginia (quota 9.547) while rounding up Rhode Island (quota 2.499); rounding down North Carolina (quota 10.581) while rounding

up Vermont (quota 1.457); and rounding down New York (quota 42.92) while rounding up New Mexico (quota 1.46). Young Aff. ¶28-29. Hill has produced (and would have produced, if in effect) other reversals as well. Moreover, in every one of these "reversals," the less populous states are favored over the more populous states. Young Aff. ¶32. The Dean and Adams methods also produce reversals. Young Aff. ¶45.

The Webster method never leads to a reversal. Young Aff. ¶8, 31. It produces apportionments that are always as near each state's quota as practicable. It is thus the only divisor method that produces results that meet the goal of Wesberry -- to equalize each voter's share of a representative -- free from the anomalies inherent in the other methods.

B. The Hill Method Is Fundamentally Flawed And Fails To Achieve One Person, One Vote As Nearly As Practicable.

1. Congress' Choice Of The Hill Method Was Based On Political Expediency.

The statute which adopted the Hill method as the method of apportionment in 1941, 2 U.S.C. 2a, was the product of political expediency. Members of Congress in 1941 selected a formula based not on which one produced the least biased results, but rather on whether Arkansas, a largely Democratic state, or Michigan, a mostly Republican state, would receive an extra House seat in that apportionment.^{15/} Congress

^{15/} A Representative from Michigan observed that one of his Democratic colleagues was quoted "perhaps erroneously -- as having stated that (footnote continued)

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favored Arkansas, and therefore the Hill method, in a vote that split along party lines: every Republican representative voted against adoption of the Hill method, while every Democratic member (except those from Michigan, which would lose a seat) voted for it. Stip. 67.

The government maintains that the decision to adopt the Hill method was based on a 1929 National Academy of Sciences (NAS) study on methods of apportionment. (Appellants' Br. at 10-11, 6a-12a) To the extent any

(footnote continued)

there was no partisanship in this bill; that it was merely a measure to give the Democratic Party a Congressman and a Presidential elector which they could not otherwise be certain of securing." 87 Cong. Rec. 1126 (1941) (statement of Rep. Hoffman). See also Fair Representation at 57-58; J.S. App. 16a, n.6.

members of Congress may have been influenced by the NAS study, it was fundamentally flawed. The study concluded that among the five methods considered, the Hill method "occupies mathematically a neutral position with respect to emphasis on larger and smaller states." Stip. 69; Young Aff. ¶ 49. The study did not, however, constitute a finding that the Hill method was intrinsically unbiased. The sole basis for the study's finding of "neutrality" was that when the five apportionment methods under consideration were listed in order of bias, from those that favored small states to those that favored large states, the Hill method ranked in the middle. Young Aff. ¶50. In fact, the Hill method works an inherent and

systematic bias against more populous states. (See pt. II, D, infra.)

It is also significant that Congress adopted the Hill method before this Court issued its ruling in Wesberry, which established the requirement that each person's vote be worth as much as another's "as nearly as practicable." Thus, even if there were criteria that made the Hill method a rational choice under the standards in effect in 1941, they do not apply today. "A statute which was once validly enacted or constitutional may be rendered unconstitutional by a change in the facts or circumstances upon which it was based." J.S. App. 18a, n.8 (citing Leary v. United States, 395 U.S. 6, 38 n.68 (1969); United States v. Carolene Products Co., 304 U.S. 144, 153 (1938);

Nashville, C. & S.L. Ry. v. Walters, 294 U.S. 405, 415 (1935); Chastleton Corp. v. Sinclair, 264 U.S. 543, 547 (1924)). The district court panel determined that the 1964 Wesberry decision, and demographic changes in the United States population over the past fifty years, "constitute sufficient changes in circumstances to call into question the rationality of 2 U.S.C. § 2a today." J.S. App. 18a, n.8.

There are several compelling reasons to "question the rationality of 2 U.S.C. 2a today." It is fundamentally flawed in the following respects.

2. The Hill Method Does Not Minimize Deviations In Each Voter's Share Of A Representative.

The Hill method simply does not treat the value of each citizen's vote

as equally as possible. Young Aff.

¶41. Hill is inherently problematical in that it relies on an analysis of relative differences in representation as between states. When the goal is to minimize deviation from equality, however, the relative difference test is inappropriate. Young Aff. ¶33. It is problematical in that it treats deviations below the norm as more significant than the same deviations above the norm, whereas analysis of the those deviations on either absolute or percentage terms demonstrates that such deviations are equivalent. Young Aff. ¶35-36.^{16/} For this reason, the

^{16/} The absolute difference between two numbers is the larger number minus the smaller; the relative difference is the absolute difference between them divided by the smaller of the two numbers. Young Aff. ¶34.

"relative difference" criterion is neither standard nor appropriate as a statistical measure of deviation. Young Aff. ¶37.

The effect of the Hill method is that citizens are not treated as equally as possible in terms of their shares of a representative. Young Aff. ¶41. For example, in the 1990 census, the Hill method, in giving Oklahoma 6 seats and Massachusetts 10, does not come as close as Webster would (in giving Massachusetts 11 and Oklahoma 5) in giving each person equal representation in the House. Hill's method fails to achieve such equal representation as "near as may be" in both absolute and percentage terms. Young Aff. ¶41-42. A Webster apportionment brings both states closer, in both absolute⁹ and

percentage terms, to the average share of a representative for the two states combined. Young Aff. ¶42.

Dr. Ernst, the government's expert, agrees that the Webster method is a "better" test than Hill in measuring "the portion of a vote (member) to which a person is entitled in the House." (See n.4, supra.) Since "portion of a vote" is the appropriate test under Wesberry, the government effectively concedes that the Hill method fails to achieve "as nearly as practicable" the ideal of one person, one vote.

3. The Hill Method Deviates Unnecessarily From Quota, And Produces Reversals.

As explained above (pt. II, A, 2, supra), the Hill method fails to come as close as possible to quota, and produces

reversals. In these respects, it fails to achieve as nearly as practicable the goal of equalizing each citizen's share of a representative. Indeed, to the extent it produces these anomalous results, it does so in a way which favors less populous states. (See pt. II, D, infra.)

C. The Dean Method Also Departs Substantially From The One-Person, One-Vote Ideal.

The district court and the State of Montana favor use of the Dean method as the proper method of apportionment. J.S. App. 13a-16a; Appellees' Br. at 36-41. It is fundamentally flawed, however, in a number of respects.

The Dean method is based on using average district size as the measure of inequality. Although that measure works

in an intrastate context, it is not an effective standard in the context of interstate apportionment (see pt. I, B, supra), and does not treat each citizen's vote as equally as possible. Young Aff. ¶19-23, 39-40. The use of average district size in the interstate context tends to bias the outcome in favor of small states. Young Aff. ¶24. Indeed, in 1990, the Dean method fails to meet the one-person, one-vote standard in that it gives Washington's residents a disproportionately larger share of a representative as compared with Montana's residents. Young Aff. ¶43. Indeed, the Dean method is even more biased than the Hill method in favoring less populous over more populous states. Young Aff. ¶24, 59.

In addition, the Dean method produces reversals and, thus, does not stay as near the quota as Webster's method. Young Aff. ¶45.^{17/}

- D. **Because Of The Inherent Bias Against More Populous States Worked By The Other Divisor Methods, And The Relative (If Not Absolute) Lack Of Bias Of The Webster Method, The Latter Is The Only Constitutional Method Of Apportionment.**

Any method of apportionment which has an inherent bias against more populous states, and in favor of less populous states, is unconstitutional. Under the terms of the Great Compromise

^{17/} Accordingly, if this Court were to determine that the Hill method of apportionment were unconstitutional, it should refrain from ordering the adoption of the Dean method. It may order the adoption of the Webster method (see Pt. III, A, infra) or, alternatively, await the benefit of the record in the Massachusetts proceedings.

of 1787, less populous states were granted special representation in the Senate. To permit the use of any apportionment formula for House seats that was biased in favor of less populous states would directly contravene the principles of the Great Compromise, and the requirement that the value of each person's vote be equalized. This is especially true where an unbiased method of apportionment is readily available. The Hill method perpetrates this constitutional vice: it is systematically biased against more populous states and is, therefore, unconstitutional.

The Hill method leads to apportionments that are systematically biased against more populous states, persistently giving the people of less

populous states more representation per capita. Young Aff. ¶53-54, 58. Since it was adopted in 1941, the Hill method has given less populous states, on average, over six percent more representation per capita than it has to more populous states. Young Aff. ¶58. This is not a statistical accident. If Hill's method had been used for every census from 1790 to 1990, it would have given, on average, over 3.3 percent more representation per capita to the less populous states than to the more populous states.^{18/} Id. In contrast,

^{18/} In fact, the Congressional Research Service itself reported that the "Hill formula was found to have 'a definite tendency to give large States less than their fair shares [of seats] and the small states more.'" CRS Report for Congress at 21 (citing H.P. Young and M.L. Balinski, Evaluation of Apportionment Methods, prepared under a contract for the Congressional Research Service of the Library of Congress Contract No. CRS84-15) (Washington, 1984)).

if the Webster method had been used in every apportionment since 1790, it would have given less populous states less than one-half of one percent more representation per capita than more populous states. Young Aff. ¶60. Moreover, over a longer series of apportionments, the Webster method can be expected to exhibit no discernible bias toward either more or less populous states. Young Aff. ¶62. Indeed, in every single census, the percentage difference between a person's share of a representative in more populous states and a person's such share in less populous states would have been smaller (or at least not larger) under Webster's method than under any other divisor method. In this respect, Webster apportionments come closest to

implementing the Great Compromise and the ideal of one person, one vote. Young Aff. ¶61.

The bias that the Hill method produces is not only persistent, but also constitutionally significant. This Court has routinely invalidated apportionment schemes that produce deviations from the ideal of less than one percent. See, e.g., Karcher, 462 U.S. 725 (deviation of 0.6984 percent between largest and smallest district held unconstitutional); White, 412 U.S. 783 (deviation of .745 percent invalidated); Kirkpatrick, 394 U.S. 526. Furthermore, factors that may justify even small deviations from the "as nearly as practicable" standard in state legislative redistricting cases do not apply in the interstate context.

See Reynolds v. Sims, 377 U.S. 533,
578-81 (1964).^{19/}

III. AN ORDER REQUIRING USE OF THE
WEBSTER METHOD IN CONNECTION WITH
THE 1990 CENSUS IS FULLY WITHIN
THIS COURT'S AUTHORITY AND
CONSISTENT WITH THIS COURT'S
APPROACH TO APPORTIONMENT CASES.

A. Given The "Unusual Rigor"
Applied In Apportionment Cases,
Ordering Adoption Of The
Webster Method Is Within This
Court's Authority.

In Karcher, this Court noted the
"unusual rigor" that must be applied to

^{19/} The Supreme Court has recognized a
fundamental difference between state
legislative and congressional
redistricting. Id. at 578 (noting that
"[s]omewhat more flexibility may
therefore be constitutionally
permissible with respect to state
legislative apportionment than in
congressional districting.") Mahan v.
Howell, 410 U.S. 315, 321 (1973) (same);
White v. Weiser, 412 U.S. 783, 793
(1973) (congressional districts "are not
so intertwined and freighted with
strictly local interests as are state
legislative districts").

achieve the goal of equal representation
for equal numbers in the apportionment
of Congressional districts. 462 U.S. at
732-33. As the Court noted, this rigor
has led courts not only to invalidate
existing apportionments achieved by
state legislatures, but to substitute
court-ordered plans in their stead, to
the point of judicial redrawing of
district lines. Id. at 734, n.6; White
v. Weiser, 412 U.S. 783, 794-95 (1973).

The only way to achieve equality of
voting power in the context of
interstate apportionment is to follow
that method of apportionment which best
equalizes votes on a per capita basis.
(See pt. I, B, supra). If there were
any question whether the Hill method
should be tolerated despite its defects

because it was once endorsed by Congress, this Court has firmly concluded in Karcher that, in the context of congressional apportionment, second best is not good enough -- it is unconstitutional. "As between two standards -- equality or something less than equality -- only the former reflects the aspirations of Art. I, §2." Karcher, 462 U.S. at 732.

Accordingly, just as this Court has authorized, and the lower courts have ordered, judicial redrawing of district lines on an intrastate basis, so it is perfectly proper for this Court to order the adoption of the only apportionment method which achieves the one-person, one-vote standard "as nearly as practicable": the Webster method.

B. Enjoining Use Of The Hill Method For The 1990 Census Is Appropriate And Feasible.

The Commonwealth adopts the argument of the State of Montana that it is both appropriate and feasible for this Court to enjoin use of the Hill method for the 1990 census. (Appellees' Br. at 47-48.)

CONCLUSION

The district court's judgment declaring the Hill method (2 U.S.C. 2a) unconstitutional and enjoining its use should be affirmed. Congress should be directed to apportion seats in the House

of Representatives in accordance with
the Webster method of apportionment.

Respectfully submitted,

SCOTT HARSHBARGER
ATTORNEY GENERAL
OF MASSACHUSETTS

Dwight Golann*
Steve Berenson
Assistant Attorneys General
One Ashburton Place
Boston, Massachusetts 02108
(617) 727-2200

John P. Driscoll, Jr.
Edward P. Leibensperger
Neil P. Motenko
Special Assistant Attorneys
General
Nutter, McClennen & Fish
One International Place
Boston, Massachusetts 02110
(617) 439-2000

Dated: February 11, 1992

2612B

ADDENDUM

U.S. Const., Art. 1, §2

2 U.S.C. 2a

DEC 13 PAGE 10

No. 91-860

In The

Supreme Court of the United States

October Term, 1991

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OFFICE OF THE CLERK
SUPREME COURT U.S.

UNITED STATES DEPARTMENT OF COMMERCE; ROBERT A. MOSBACHER, Secretary of the United States Department of Commerce; BUREAU OF THE CENSUS; BARBARA EVERITT BRYANT, Director of the Bureau of the Census; and DONNALD K. ANDERSON, Clerk of the United States House of Representatives,

Appellants,

vs.

THE STATE OF MONTANA; STAN STEPHENS, Governor of the State of Montana; MARC RACICOT, Attorney General for the State of Montana; MIKE COONEY, Secretary of State for the State of Montana; MAX BAUCUS, United States Senator; CONRAD BURNS, United States Senator; PAT WILLIAMS, United States Representative; and RON MARLENEE, United States Representative,

Appellees.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA

MOTION FOR EXPEDITED BRIEFING SCHEDULE
AND ORAL ARGUMENT

MARC RACICOT*
Attorney General of Montana
CLAY R. SMITH
Solicitor
ELIZABETH S. BAKER
Assistant Attorney General
State of Montana
Justice Building
215 North Sanders
Helena MT 59620-1401
(406) 444-2026

*Counsel of Record

3/24

MOTION FOR EXPEDITED BRIEFING SCHEDULE
AND ORAL ARGUMENT

COME NOW the appellees, by and through their counsel of record, and respectfully move for an expedited briefing schedule and oral argument should probable jurisdiction be noted and this matter set for plenary consideration on the merits.

This motion is made on the grounds that the case presents an issue of paramount importance concerning the composition of the United States House of Representatives, that the membership of the House is in question for the 103d Congress and for subsequent Congresses, and that the question is capable of resolution and should be resolved prior to the 1992 elections for United States Representatives.

Appellees have contacted counsel for the appellants in this matter, and they do not oppose this request. Should the Court note probable jurisdiction, and its calendar permits, appellees request an oral argument date on the February, 1992, argument calendar. The parties are willing to abide by the following briefing schedule:

Opening brief of appellants: January 15, 1992

Response brief of appellees: February 12, 1992

Reply brief of appellants: February 21, 1992

Respectfully submitted this 4th day of December, 1991.

Marc Racicot

MARC RACICOT

Attorney General

State of Montana

CLAY R. SMITH

Solicitor

ELIZABETH S. BAKER

Assistant Attorney General

Justice Building

215 North Sanders

Helena MT 59620-1401

CERTIFICATE OF SERVICE

I hereby certify that I mailed a true and accurate copy of the foregoing, postage prepaid, by U.S. mail, to the following:

Steven R. Ross
General Counsel to the Clerk
Michael L. Murray
Senior Asst. Counsel to the Clerk
U.S. House of Representatives
The Capitol, H-112
Washington D.C. 20515

Kenneth O. Eikenberry
Attorney General
James Johnson
Senior Assistant Attorney General
Office of the Attorney General
Seventh Floor, Highway-Licenses Building
Olympia WA 98504

I further certify that I mailed, via federal express, a true and accurate copy of the foregoing to the following:

Kenneth W. Starr
Solicitor General
Edwin S. Kneeder
Assistant to the Solicitor General
United States Department of Justice
Washington D.C. 20530

DATED: Dec 4 1991

Margaret L. Rudio

FEB 12 1992

OFFICE OF THE CLERK

No. 91-860

In The
Supreme Court of the United States

October Term, 1991

UNITED STATES DEPARTMENT OF COMMERCE, et al.,

Appellants,

vs.

THE STATE OF MONTANA, et al.,

Appellees.

*On Appeal From The United States District Court
For The District Of Montana*

BRIEF AMICI CURIAE OF THE CROW TRIBE OF
INDIANS, CHIPPEWA CREE TRIBE OF THE ROCKY BOY'S
RESERVATION, BLACKFEET TRIBE OF THE BLACKFEET
RESERVATION, GROS VENTRE AND ASSINIBOINE
TRIBES OF THE FORT BELKNAP INDIAN COMMUNITY,
THE CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD RESERVATION, AND THE NORTHERN
CHEYENNE TRIBE

IN SUPPORT OF APPELLEES
STATE OF MONTANA, ET AL.

Dale T. White*
FREDERICKS, PELCYGER & HESTER
1881 9th Street, Suite 216
Boulder, Colorado 80302
Telephone: (303) 443-1683

February, 1992

*Counsel of Record for all Amici

JEANNE S. WHITEING
WHITEING & THOMPSON
1136 PEARL STREET, STE. 203
BOULDER, CO 80302
(303) 444-2549
*Counsel for the Blackfeet Tribe
of the Blackfeet Reservation*

JAMES L. VOGEL
P.O. DRAWER H
HARDIN, MT 59034
(406) 665-3900
*Counsel for the Fort Belknap
Indian Community*

DANIEL F. DECKER
CONFEDERATED SALISH &
KOOTENAI TRIBES
LEGAL DEPARTMENT
P.O. BOX 278
PABLO, MT 59855
(406) 675-4700
*Counsel for the Confederated
Salish and Kootenai Tribes*

HAROLD A. MONTEAU
MONTEAU, GUNTHER & DECKER, P.C.
410 CENTRAL AVENUE, SUITE 522
GREAT FALLS, MT 59401
(406) 452-9955
*Counsel for the Chippewa Cree Indians
of the Rocky Boy's Reservation*

CALVIN WILSON
BUSBY, MT 59016
(406) 592-3582
*Counsel for the Northern
Cheyenne Tribe*

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(1986 Ed.) 11

INTEREST OF AMICI CURIAE

Amici curiae¹ are federally-recognized

American Indian tribes located within the State
of Montana.²

In total, the 1990 U.S. Census identifies
18,675 Indians living on seven Indian
Reservations in Montana. The total Indian
population within the State according to the
1990 Census is 47,524. This constitutes

¹ Counsel for Appellants and Appellees
have consented to the filing of the brief of
amici Tribes. The written consents are
submitted for filing herewith.

² The amici Tribes are the Crow Tribe,
the Chippewa Cree Tribe of the Rocky Boy's
Reservation, the Blackfeet Nation, the Gros
Ventre and Assiniboine Tribes of the Fort
Belknap Indian Reservation, the Confederated
Salish and Kootenai Tribes of the Flathead
Reservation, and the Northern Cheyenne Tribe.
According to the 1990 U.S. Census, 6,370
persons reside within the Crow Reservation;
4,724 are American Indians; 1,954 persons
reside on the Rocky Boy's Reservation, 1,882
are Indians; 8,549 persons reside on the
Blackfeet Reservation, including 7,025 Indians;
2,508 persons reside on the Fort Belknap
Reservation, 2,338 are Indians; 21,259 persons
reside within the Flathead Reservation, 5,130
are Indians; 3,923 persons reside on the
Northern Cheyenne Reservation, 3,542 are
Indians.

approximately 5.9% of the total state population of 803,655. Amici tribes have a substantial interest in the issues raised in this case. Reapportionment of the United States House of Representatives will result in the State of Montana losing one of its two representatives and reducing the State's representatives by 50% from two to one. As noted by the three judge district court panel below, the proposed reapportionment of Montana as a single district would contain the "largest number of persons per representative in any district" among all states. State of Montana v. Department of Commerce, 775 F.Supp. 1358, 1362 n.1 (D. Mont. 1991). With a population of 803,655, Montana would become a congressional district 40 percent larger than the ideal district size of 572,466. (Mot. to Aff. at App. 14.)

SUMMARY OF ARGUMENT

Upholding the reapportionment of the United States House of Representatives would

result in the State of Montana losing one of its existing two representatives. This 50% reduction will be harmful to the amici tribes. At present, it is difficult for Montana's Tribes to be heard effectively in Congress with two representatives. It is especially important for Indian tribes to have adequate representation in Congress because of the plenary authority of Congress over Indian affairs. Over the course of history, and especially over the past twenty-five years, Congress has passed numerous special laws to protect specific Indian tribes and to fulfill the government's responsibility to those tribes. The ability of Montana's Tribes to secure favorable legislation from Congress will be severely impaired if Montana's representation is reduced from two congressmen to one.

Amici submit this Brief to urge the Court to find that the proposed reapportionment is invalid.

ARGUMENT

I. INDIAN TRIBES ARE ESPECIALLY DEPENDENT UPON CONGRESSIONAL REPRESENTATION.

Indian tribes are extremely dependent upon Congress. This Court has repeatedly held that Congress has "plenary authority to legislate for the Indian tribes in all matters." United States v. Wheeler, 435 U.S. 313, 319 (1978), citing Winton v. Amos, 255 U.S. 373, 391-392 (1921); In re Heff, 197 U.S. 488, 498-499 (1905); Lone Wolf v. Hitchcock, 187 U.S. 553 (1903); and Talton v. Mayes, 163 U.S. 376, 384 (1896). In Wheeler, the Court described this as an "all-encompassing power." 435 U.S. at 319. "Congress has broad power to regulate tribal affairs under the Indian Commerce Clause, Art. 1, § 8, cl.3." White Mountain Apache Tribe v. Bracker, 448 U.S. 136, 142 (1980).³ As a consequence of this power, Indian tribes rely on Congress to a greater

³ While tribes are subject to Congress' plenary power, "until Congress acts, the tribes retain their existing sovereign powers." United States v. Wheeler, 435 U.S. at 323.

extent than any other group.

Over the past twenty-five years, Congress has pursued a policy of promoting tribal self-government and self-determination for Indian tribes in general. Indian tribes such as the amici have increasingly relied upon Congress to obtain the necessary assistance to improve conditions on their reservations in the areas of economic development, health, environmental protection and law and order. This has included general Indian legislation such as the Indian Civil Rights Act, 25 U.S.C. §§1301-1341, which acknowledged the existence and authority of tribal governments, the Indian Financing Act of 1974, 25 U.S.C. §§1451-1543, which provided a means for tribes to enhance their reservation economies, and the Indian Self-Determination Act of 1975, 25 U.S. §§450-450n, providing tribes with the opportunity to administer and control their own governmental programs.⁴

⁴ See also the Indian Child Welfare Act of 1978, 25 U.S.C. §§1901-1963, the Indian Alcohol and Substance Abuse Prevention and

These statutes benefit tribes on a national level. But, in addition to general Indian legislation, in recent years Congress has increasingly enacted legislation dealing specifically with individual Indian tribes, on a tribe-by-tribe basis. Examination of Title 25, U.S. Code, shows a dramatic increase over the past twenty-five years in federal legislation dealing specifically with individual Indian tribes. In Title 25 of the United States Code, from §495 through §1300 there are seventy-five subchapters, each of which specifically addresses either individual Indian tribes or Indian tribes within a particular state. See, for example, Pub. L. 91-264, May 22, 1970, 84 Stat. 260, 25 U.S.C. §641 (providing Hopi Tribe with certain powers of self-determination with respect to industrial park); Pub. L. 92-312, June 14,

Treatment Act of 1986, 25 U.S.C. §§ 2401-2478; the Indian Gaming Regulatory Act of 1988, 25 U.S.C. §§ 2701-2721 and the Native American Graves Protection and Repatriation Act of 1990, 25 U.S.C. §§ 3001-3013.

1972, 86 Stat. 216, 25 U.S.C. §§668-670 (governing sale and mortgage of Southern Ute Tribe lands in Colorado); Pub. L. 95-195, November 18, 1977, 25 U.S.C. §§711-711f, 91 Stat. 1415 (restoration of Federal supervision over Siletz Indian Tribe of Oregon); Pub. L. 97-429, January 8, 1983, 96 Stat. 2269, 25 U.S.C. §§1300b-11 to 1300b-16 (provision of federal services to Texas Band of Kickapoo Indians); Pub. L. 100-89, Title I, August 18, 1987, 101 Stat. 666, U.S.C. §§1300g-1300g-7 (restoration of federal supervision of Ysleta del Sur Pueblo); Pub. L. 100-420, September 8, 1988, 102 Stat. 1577, U.S.C. §§1300h-1300h-8 (reaffirming federal supervision Lac Vieux Desert Band of Lake Superior Chippewa Indians); Pub. L. 101-484, October 31, 1990, 104 Stat. 1167, 25 U.S.C. §§983-983h (restoration of rights and privileges of the Ponca Tribe of Nebraska).⁵

⁵ Congress has also increasingly dealt with tribes on an individual basis in terms of budget appropriations. See Pub. L. 102-154,

A number of recent Indian laws have dealt with settlement of water and land disputes, providing for significant economic development funds for those tribes and recovery of tribal aboriginal lands and quantification of tribal water rights. See, Pub. L. 95-328, July 28, 1978, 92 Stat. 409, Water Rights Settlement Act for Ak-Chin Indian Community; Pub. L. 96-420, October 10, 1980, 94 Stat. 1785, 25 U.S.C. §§1721-1735, Maine Indian Claims Settlement Act; Pub. L. 97-293, October 12, 1982, 96 Stat. 1274, Papago Indian Water Rights Settlement Act; Pub. L. 98-134, October 18, 1983, 95 Stat. 852, 25 U.S.C. §§1751-1760, Connecticut Indian Land Claims Settlement Act; Pub. L. 100-95, August 18, 1987, 101 Stat. 704, 25 U.S.C. §§1771-1771i, Massachusetts Indian Land Claims Settlement Act; Pub. L. 100-228, December 31, 1987, 101 Stat. 1556, 25 U.S.C. §§1772-1772g, Seminole Indian Land Claims Settlement Act;

November 13, 1991, 105 Stat. 990-1038, Department of the Interior and Related Agencies Appropriations Act, 1992.

Pub. L. 100-512, October 20, 1988, 102 Stat. 2549, 25 U.S.C. §§1772-1772g, Salt River Pima-Maricopa Indian Community Water Rights Settlement Act; Pub. L. 100-585, November 3, 1988, 102 Stat. 2973, Colorado Ute Indians Water Rights Settlement Act of 1988; Pub. L. 100-675, November 17, 1988, 102 Stat. 4000, San Luis Rey Indian Water Rights Settlement Act; Pub. L. 101-41, June 21, 1989, 103 Stat. 83, 25 U.S.C. 1773-1773j, Washington Indian (Puyallup) Land Claims Settlement Act; Pub. L. 101-503, November 3, 1990, 104 Stat. 1292, U.S.C. §§1774-1774h, Seneca Nation (New York) Land Claims Settlement Act; Pub. L. 101-618, November 16, 1990, 104 Stat. 3289, Fallon Paiute Shoshone Indian Tribes Water Rights Settlement Act and Truckee-Carson-Pyramid Lake Water Rights Settlement Act.⁶

⁶ The Tribes in Montana are especially interested in this latter category of legislation since their federally-reserved water rights are currently subject to a state-wide adjudication in Montana which has, and will, require federal legislation for settlement. See, Mont. Code Ann. §85-2-702;

Based upon this trend towards specific tribe-by-tribe legislation, it is extremely important that the amici tribes in Montana retain Montana's existing two seats in the House of Representatives.

II. MONTANA AND MONTANA INDIAN TRIBES WILL BE SEVERELY AND ADVERSELY AFFECTED BY THE REAPPORTIONMENT.

The reduction of representatives from two seats to one, a 50% reduction, is the largest and most dramatic reduction possible so long as each state is guaranteed at least one seat. At present, only six other states have one representative.⁷ Montana, along with six other states,⁸ currently has two representatives. This is in contrast to states like California and New York which have 45 and

Arizona v. San Carlos Apache Tribe, 463 U.S. 545 (1983); and Fort Peck-Montana Compact, Mont. Code, Title 85, Ch. 20, Part 2.

⁷ Alaska, Delaware, South Dakota, North Dakota, Vermont and Wyoming.

⁸ The other six states are Hawaii, Idaho, Maine, Nevada, New Hampshire and Rhode Island.

34 representatives respectively. A loss of one seat would affect these larger states by 2% and 3% respectively. Even the State of Washington, which stands to gain one seat from the new reapportionment, currently has eight seats and would not be affected nearly as much as Montana would be by the loss of one of its two seats. A loss of one seat for the State of Washington would represent a reduction of only 12.5%.

One of the groups that will be especially hard hit by the reduction is Montana's Indian population. Based upon the 1990 U.S. Census, the American Indian population in Montana is approximately 5.9% of the total State population. Examination of 1980 U.S. Census figures shows that the Indian population has increased by 10,000 over the past ten years and the percentage of Indian to total population has increased by approximately 1.2%. See and compare, Getches & Wilkinson, Federal Indian

Law, (1986 Ed.) 6-7.⁹ Thus, while Montana's overall population has decreased, according to the 1990 U.S. Census, the number of Indians residing within the State has increased. The proposed reduction in representatives is thus especially damaging to the Indian population within the State.

Amici urge this Court to adopt a standard governing congressional reapportionment which takes account of the impacts of the proposed redistribution of power between the states. Reapportionment should not pass constitutional muster where, as here, there is not only a major disparity in population between congressional districts but in addition that disparity significantly and disproportionately diminishes the congressional representation of one state vis-a-vis the others. This rule should be applied especially where the

⁹ According to these figures, based upon the 1980 U.S. Census, Montana had an Indian population of 37,270 in 1980, which represented 4.7% of the total state population. Getches & Wilkinson, Federal Indian Law, (1986 Ed.) 6-7.

disparity can be reduced by use of a different apportionment formula.

For these reasons, it is very important that amici have adequate representation in the halls of Congress. Without this representation, the Tribes will not be able to obtain the legislation they need to obtain self-determination and self-governance.

CONCLUSION

For the reasons stated above, the decision of the three judge district court holding that the reapportionment is invalid should be affirmed.

Respectfully submitted,

Dale T. White*
FREDERICKS, PELCYGER & HESTER
1881 9th Street, Suite 216
Boulder, Colorado 80302
Telephone: (303) 443-1683

* Counsel of Record for all Amici

Supreme Court, U.S.

F I L E D

FEB 12 1992

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No. 91-860

**In the
Supreme Court of the United States.**

October Term, 1991

UNITED STATES DEPARTMENT
OF COMMERCE, et al.,
Appellants

v.

STATE OF MONTANA, et al.,
Appellees

On Appeal From the United
States District Court
for the District of Montana

**LODGING OF THE COMMONWEALTH
OF MASSACHUSETTS AS AMICUS CURIAE**

Scott Harshbarger
Attorney General
of Massachusetts

John P. Driscoll, Jr.
Edward P. Leibensperger
Neil P. Motenko
Special Assistant Attorneys
General
Nutter, McClennen & Fish
One International Place
Boston, MA 02110
(617)439-2000

Dwight Golann*
Steve Berenson
Assistant Attorneys General
One Ashburton Place
Boston, Massachusetts 02108
(617)727-2200, ext.2068

*Counsel of Record

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4. D.C. Huckabee, House Apportionment Following the 1990 Census: Using the Official Counts, CRS Report for Congress (Feb. 4, 1991)

EDITOR'S NOTE

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BETTER COPY CAN BE OBTAINED, A NEW FICHE
WILL BE ISSUED.

AFFIDAVIT OF H. PEYTON YOUNG

I. BACKGROUND

1. I am Professor of Public Policy and Applied Mathematics at the University of Maryland. My curriculum vitae has been lodged with the Court. I have spent over fifteen years studying the mathematical theory and the legislative history of apportionment in the United States. The results of these studies are given in my book with Michel L. Balinski entitled *Fair Representation: Meeting the Ideal of One Man One Vote*, Yale University Press, 1982 (hereinafter *Fair Representation*).

2. I submit this affidavit in support of the brief of the Commonwealth of Massachusetts before this Court as amicus curiae. References below to the "Stipulation" refer to the Stipulation of Facts entered into in the Massachusetts litigation and lodged with the Court.

II. THE NEAR AS MAY BE STANDARD

3. The history of apportionment legislation in the United States can be understood as a search for a formula that meets the constitutional ideal of one person, one vote as near as may be. The "near as may be" or close as practicable standard was first formulated by Daniel Webster in an address to the Senate in 1832: "The Constitution, therefore, must be understood, not as enjoining an absolute relative equality, because that would be demanding an impossibility, but as requiring of Congress to make the apportionment of representatives among the several States according to their respective numbers as near as may be. That which cannot be done perfectly must be done in a manner as near perfection as can be . . ." *The Writings and Speeches of Daniel Webster, National Edition*. Boston: Little Brown, 1903, vol. 6, at 107-109.

4. Webster's address was provoked by an apportionment using the then-prevailing method of Jefferson. By the census of 1830, Jefferson's method gave 40 seats to New York (with a quota of 38.593) and 28 seats to Pennsylvania (with a quota of 27.117), but only 5 seats to Vermont (with a quota of 5.646) and only 1 seat to Delaware (with a quota of 1.517). Webster pointed out that by taking one seat from New York and giving it to Vermont, and

by taking one seat from Pennsylvania and giving it to Delaware, the representation of *all four* states would be brought closer to their quotas, that is, to their ideal numbers of seats. Hence the Jefferson apportionment did not meet the "near as may be" standard and, after 1840, was abandoned.

5. An apportionment meets Webster's "near as may be" standard if it is not possible to bring any state closer to its quota without moving some other state further away from its quota. (The quota of a state is the ideal share of a representative for each individual times the number of the individuals in that state.) An apportionment with this property is also said to be "near the quota." *Fair Representation* at 132.

6. The most natural way to find an apportionment that is "near the quota" would appear to be the following: round up every state with fractional remainder above .5, and round down every state with fractional remainder below .5. But this rounding method may apportion too many or too few seats. For example, according to the 1990 census there are 29 states with fractional remainders above one-half. If all of them were rounded up, then 438 seats would be apportioned instead of the required 435. Hence at least three states with quotas greater than one-half must be rounded down. The problem is to determine which ones they should be.

7. Webster's solution to this problem was the following: "Let the rule be that the population of each state be divided by a common divisor, and, in addition to the number of members resulting from such division, a member shall be allowed to each State whose fraction exceeds a moiety of the divisor." *The Writings and Speeches of Daniel Webster* at 120. Thus, the rounding threshold for Webster is always .5, and a divisor is found that produces (presently) 435 seats. See also Stipulation 73.

8. Webster's method always yields apportionments that meet the "near as may be" standard. In other words, if some states can be brought closer to their quotas without moving any other states further from their quotas, the Webster method will do so. Moreover, Webster apportionments never produce a situation in which one state with fraction above .5 is rounded down and simultaneously another state with fraction below .5 is rounded up. *Fair Representation* at 132. Such a situation is called a "reversal." A reversal does not meet the near as may be standard, because rounding the other way -- that is, rounding up the state with fraction above .5 and rounding down the state with fraction

below .5 -- brings both states closer to their quotas, and brings the average share of a representative in both states closer to the national average share of a representative.

9. By contrast, the current statutory method of Hill (as well as the methods of Dean, Adams, and Jefferson) often produce reversals, as I shall show below. Hence they do not meet Webster's near as may be standard. In fact, recognized methods of apportionment (e.g., Adams and Jefferson) often stray far from the quotas. For example, if Adams' method were applied to the 1990 census, it would allot California (quota 52.124) only 50 seats. Jefferson's method is similarly skewed the other way: in 1990 it would have given California 54 seats. These two methods are "rationally" tied to the states' populations, but in operation they often give results that do not come anywhere near the ideal of equal representation.

III. THE PAIRWISE COMPARISONS APPROACH

10. Webster's method is based on the premise that every state should be as close as possible to its ideal number of seats, that is, its quota. A different approach was first suggested in 1911 by Joseph Hill, a statistician at the Census Bureau. Hill's idea was to apportion seats among the states so that the relative difference in representation between every two states is as small as possible. This idea was later refined and elaborated by a Harvard mathematician named Edward V. Huntington.

11. Huntington observed that, in a perfect apportionment, the number of persons per representative -- the average district size -- would be the same in every state. Likewise, the the number of representatives per person -- the average share of a representative -- would be the same in every state. In practice, there will almost always be differences between the states because of the rounding problem.

12. An apportionment favors one state relative to another if each resident of the first state has a larger average share of a representative than each resident of the second state.

13. Huntington argued that the goal of apportionment should be to minimize the inequality in representation between every two states. In other words, it should not be possible to transfer a seat from the more favored state to the less favored state and reduce the amount of inequality between them. This is known as the "pairwise comparisons" approach to

apportionment. To make this approach workable, it is necessary to have a numerical measure of the "amount of inequality" between two states.

14. A natural measure of inequality between states is the absolute difference in their residents' average share of a representative, that is, the larger share minus the smaller share. Huntington showed that Webster's method is the only one that minimizes this measure of inequality.

15. A second measure of inequality between states is the absolute difference in the states' average district sizes, that is, the larger district size minus the smaller district size. Huntington showed that Dean's method is the only one that minimizes this criterion of inequality.

16. A third measure of inequality between states is the relative difference in the average share of a representative in each state. (The relative difference between the shares is the absolute difference between them divided by the smaller of the two shares.) This notion of inequality is minimized by Hill's method. Hill's method also minimizes the relative difference between the average district sizes of every two states.

17. Huntington showed that two less natural measures of inequality lead to the methods of Jefferson and John Quincy Adams. He showed further that the five methods -- Adams, Dean, Hill, Webster, and Jefferson -- are the only ones that result from minimizing one of his measures of inequality.

18. Huntington maintained that Hill's method (which he dubbed the method of "equal proportions" and which he attributed to himself rather than Hill) is the most appropriate of these five methods. One of his principal arguments was that Hill's method minimizes the relative difference in the average share of a representative on a pairwise basis, and also the relative difference in average district size on a pairwise basis. Hence it is not necessary to choose between average share of a representative and average district size as the measure of one person one vote, since they lead to the same result. This argument is premised, however, on the assumption that the *relative* difference between states is a more appropriate statistical measure of inequality than the *absolute* difference. As demonstrated below, this premise is faulty if the goal is equal representation for each person.

IV. SHARE OF A REPRESENTATIVE AS THE PROPER MEASURE OF ONE PERSON ONE VOTE

19. I understand one person one vote to mean that every person should have equal representation in the House. Within each state, equality can be achieved by creating districts with equal populations. In this case there is no discrepancy between average district size and average share of a representative, for if all districts have the same number of persons, then *a fortiori* all persons have an equal share of a representative. In the interstate context, however, where equal-sized districts are a practical impossibility, the two concepts are not equivalent.

20. To illustrate, suppose that a state has a population of 750,000 and that the national average district size is 500,000. The state is entitled to 1.5 seats (its quota). If it gets 2 seats then its average district size is 375,000. If it gets 1 seat its average district size is 750,000. It must get a whole number of seats, so it must either be advantaged or disadvantaged in any particular apportionment. Over several apportionments, however, the advantages and disadvantages should balance out.

21. For example, suppose that the population of the state remains fixed at 750,000 over two successive censuses, and that the national average district size remains fixed at 500,000. Thus the national average share of a representative is 1 for every 500,000 persons. If the state gets 1 seat in the first census and 2 seats in the second census (or the other way around) it has been treated fairly on average. This can be verified in two ways. First, the average number of seats that the state received over the two censuses is 1.5, which is the number it should receive (its quota). A second way of verifying fair treatment is to compute the average share of a representative in each of the two censuses. In the first census the average share was 1 divided by 750,000 or 1.33 representatives per million persons. In the second census it was 2 divided by 750,000 or 2.66 representatives per million persons. The average share over the two censuses was therefore 2 representatives per million persons, that is, one for every 500,000, which is exactly what it should be.

22. A different conclusion emerges if one compares average district sizes, however. The average district size in the first census was 750,000 and in the second census it was 375,000. Over the two censuses the average district size was therefore 562,500, which is larger than the national average (500,000). This would lead to the erroneous conclusion that the persons in the state had been underrepresented on average over the two censuses.

The fact is that the *districts* in the state were larger (on average over the two censuses) than the national average district, but the *persons* were treated, on average, equally with everyone else.

23. This example shows why the proper measure of one person one vote is the individual's share of a representative and not the average district size. If exact equality can be achieved (as in the intrastate context) then the two concepts are equivalent. They are not equivalent when, as in the interstate context, there are wide discrepancies in district size.

24. The effect of using average district size to measure inequality is to bias the outcome in favor of small states. To illustrate, consider an actual situation that arose in 1920. New York had a population of 10,380,589 and New Mexico had a population of 353,428. Nationally, the ideal share of a representative was 4.135 per million. Thus New York's quota (the number of persons in New York times the ideal share) was 42.919, whereas New Mexico's quota was 1.461. The natural solution would be to give 43 seats to New York and 1 seat to New Mexico (which is what Webster's method would do).

25. The average-district-size test, however, yields a different result. The average district size in New York (with 43 seats) would be 241,409, while the average district size in New Mexico (with 1 seat) would be 353,428. According to the average-district-size test, the "amount of inequality" between them is 112,019 persons per district. Suppose instead that New York received 42 seats and New Mexico received 2 seats. Then the average district sizes would be 247,157 in New York and 176,714 in New Mexico. The "amount of inequality" would then be 70,443 persons per district, which is smaller. By this reasoning, New York (with a quota of 42.92) would be rounded *down* to 42 seats and New Mexico (with a quota of 1.46) would be rounded *up* to 2 seats. This is a reversal. (See Par. 8.)

26. A reversal does not meet the near as may be standard. New York would be closer to its quota if it got 43 seats instead of 42, and New Mexico would be closer to its quota if it got 1 seat instead of 2. Similarly, New Yorkers' average share of a representative would be closer to the national average share if they got 43 seats instead of 42, and New Mexicans' average share of a representative would be closer to the national average share if they got 1 seat instead of 2. Both states would be closer to the ideal of one person one vote if the reversal were undone.

27. The methods of Adams and Hill also produce a reversal in this case. To see why Hill's method yields this result, suppose there were no reversal, so that New York receives 43 seats and New Mexico receives 1 seat. The average share of a representative would then be 4.142 per million in New York and 2.829 in New Mexico. According to the Hill relative difference criterion, the "amount of inequality" between the two states is the percentage by which 4.142 exceeds 2.829, which is about 46%. If instead New York receives 42 seats and New Mexico receives 2 seats, their average shares of a representative are 4.046 per million and 5.659 per million respectively. The relative difference between them is now about 40%, which is smaller than before. So according to Hill's method the reversal should stand.

28. The reason for this anomaly is Hill's reliance on the relative difference test, which is not appropriate here (see Par.33-45). Webster's method uses the absolute difference between shares of a representative as the criterion of inequality, which does not produce reversals. For example, in 1920, Webster's method would have allotted New York 43 seats and New Mexico 1 seat. The absolute difference between their shares of a representative would have been 1.313 per million. If instead New York received 42 seats and New Mexico received 2 seats (as it would under Hill), the absolute difference in their shares of a representative would have been 1.613 per million, which is larger. Therefore it makes more sense to give New York 43 seats and New Mexico 1 seat, and this involves no reversal.

29. This is not the only reversal that Hill's method would have produced in 1920 had it been the statutory method. Virginia (quota 9.547) would have been rounded down to 9 seats while Rhode Island (quota 2.499) would have been rounded up to 3 seats. North Carolina (quota 10.581) would have been rounded down to 10 seats while Vermont (quota 1.457) would have been rounded up to 2 seats.

30. By contrast, in 1920, Webster's method would have rounded *up* all states with quotas above one-half and rounded *down* all states with quotas below one-half. There would have been no reversals. This is because Webster's method minimizes the absolute, instead of the relative difference, in the shares of a representative as between every two states.

31. Hill's method has actually produced a number of reversals since it was adopted in 1941. In 1970, for example, Hill's method rounded up South Dakota (quota 1.435) to 2 seats, while it rounded down Connecticut (quota 6.503) to 6 seats. It also produced a

reversal in 1960. In every one of these cases, the Webster solution would have produced no reversals, and brought all of the affected states closer to their quotas.

32. It is also significant that in every case where Hill's method produces a reversal, the less populous state is the one that is favored (rounded up) and the more populous state is the one that is disfavored (rounded down). This is part of a systematic pattern of bias in which Hill's method tends to give more representation to residents of small states than to residents of large states, as I shall explain below (Par. 46-63).

V. RELATIVE DIFFERENCE VERSUS ABSOLUTE AND PERCENTAGE DIFFERENCE

33. The Hill method is based on the premise that the relative difference is the right way to measure the difference between two numbers. When the goal is to minimize deviation from the ideal of equality, however, the relative difference is not the right way.

34. The *absolute difference* between two numbers is the larger number minus the smaller number. The *relative difference* between two numbers is the absolute difference between them divided by the smaller of the two numbers.

35. When two numbers are being considered in isolation, and there is no common standard or benchmark to which they may be compared, both the absolute and relative differences are appropriate ways to measure "difference." For example, if per capita income in one country is \$4000 and per capita income in another country is \$6000, then the absolute difference is \$2000 and the relative difference is 50%.

36. When there is an average or ideal value to which the numbers can be compared (as in apportionment), the relative difference is not appropriate. To illustrate, suppose that the average per capita income in a certain country is \$6000 and that one region of the country has a per capita income of \$4000, while another region of the same country has a per capita income of \$8000. In the first region per capita income is 33 1/3% below the national average and in the second region it is 33 1/3% above the national average. But the relative difference between the first region's income and the national average income is 50% (\$6000 is 50% larger than \$4000), while the relative difference between the second region's income and the national average income is 33 1/3% (\$8000 is 33 1/3% larger than \$6000). The relative difference suggests that the deviation below the norm in the first

region is larger than the deviation above the norm in the second region, which is not the case.

37. When measuring differences from an ideal, either the absolute difference or the percentage difference from the ideal should be employed. The relative difference is neither standard nor appropriate as a statistical measure of deviation from a norm.

38. In apportionment there is a norm or ideal to which individuals can be compared, namely, the national average share of a representative. To measure the overall deviation from this ideal, a standard approach would be to compute the absolute difference between each individual's share and the national average share, square the result, and then sum the squared differences over all individuals. (This is the "variance" of the shares.) Webster apportionments minimize this overall measure of inequality, and they are the only apportionments that do so.

39. An alternative, but fallacious approach, would be to minimize the overall inequality ("variance") in district sizes. One would compute the absolute difference between each district size and the national average district size, square the result, and then sum over all 435 districts. The only apportionments that minimize this measure of inequality are Dean apportionments.

40. As already addressed, however, the district size is not the relevant standard for one person one vote. Each district corresponds to one representative. To bring all district sizes as near equality as possible is to treat all representatives as equally as possible. The relevant principle is to treat all citizens as equally as possible. The average share of a representative is the only appropriate standard for this purpose.

41. The Hill method's reliance on the relative difference between every two states results in apportionments that do *not* treat the citizens in these states as equally as possible. In 1990, Hill's method gives Massachusetts 10 seats, and its residents' share of a representative is 1.6586 per million persons (10 divided by 6,029,051). Oklahoma gets 6 seats, and its residents' share of a representative is 1.9002 per million persons (6 divided by 3,157,604). The difference between the shares is .2416. If Massachusetts were given 11 seats and Oklahoma 5 seats (as they would be under Webster's method) then the shares would be 1.8245 in Massachusetts and 1.5835 in Oklahoma. The difference is .2410,

which is smaller than under the current apportionment. Webster's method comes closer than Hill's to giving each person equal representation in the House.

42. Hill's method does not meet the near as may be test in percentage terms either. Together, Massachusetts and Oklahoma have 9,186,655 residents and they receive 16 seats under Hill's method. So the average share of a representative for the two states combined is 1.7417 per million. As noted in the preceding paragraph, the Hill apportionment results in a share of a representative in Massachusetts of 1.6586 per million, and a share of a representative in Oklahoma of 1.9002 per million. Thus Massachusetts is 4.77% below the average share for the two states combined and Oklahoma is 9.1% above the average share for the two states combined. Under the Webster apportionment the share in Massachusetts would be 1.8245 per million and the share in Oklahoma would be 1.5835. The former is 4.75% above the average share for the two states combined and the latter is 9.08% below the average share of the two states combined. Hence the Webster apportionment brings both states closer (in absolute and percentage terms) to the average share of a representative for the two states combined.

43. The state of Montana alleges that Dean's method comes closer than either Hill's or Webster's method to meeting the one person one vote standard. This is not the case. In 1990 Montana had a population of 803,655. Dean's method would allot it 2 seats, so its share of a representative would be 2.4886 per million. The state of Washington had a population of 4,887,941 and Dean's method would allot it 8 seats, so its average share of a representative would be 1.6367 per million. Thus the absolute difference between the shares is .8519. If instead Washington were allotted 9 seats and Montana were allotted 1 seat (as would be the case under either Webster's method or Hill's method), Washington's average share would be 1.8413 and Montana's would be 1.2443. The absolute difference under this apportionment is .597, which is smaller. Under Webster's method the individual residents of Washington and Montana have more equal representation than under Dean's method.

44. In summary, Webster's method comes as close as practicable to equalizing each person's share of a representative and to bringing all the states as close as practicable to their quotas.

45. By contrast, Hill's method fails to do either because it is based on the relative difference instead of absolute or percentage difference. The relative difference is not

appropriate when there is an ideal standard against which comparisons can be made, as in this case. Hill's method also leads to reversals: a state with fraction above .5 may be rounded down, while a state with fraction below .5 may be rounded up. Reversals can also occur under Dean's and Adams' methods. They never occur under Webster's method. Moreover, whenever reversals occur under the methods of Adams, Dean, or Hill, the state that is rounded down (the disfavored state) is always the larger of the two, while the state that is rounded up (the favored state) is always the smaller of the two. (By "larger" state I mean more populous state and by "smaller" state I mean less populous state.) In this sense these methods discriminate against the larger states.

VI. BIAS

46. Huntington asserted, nevertheless, that Hill's method is even-handed in its treatment of small and large states. He reached this conclusion by the following fallacious argument. Of the five methods that minimize pairwise measures of inequality (Adams, Dean, Hill, Webster, Jefferson), Adams favors small states the most and Jefferson's method favors large states the most. (In fact, Congress had rejected Jefferson's method in 1840 in part because it was biased in favor of large states. *Fair Representation* at 35.) Of the remaining three methods, Dean's favors the small states more than Hill's, and Hill's favors the small states more than Webster's. *Fair Representation* at 118. Therefore, said Huntington, Hill's method "has no bias in favor of either the larger or the smaller states." Edward V. Huntington, "The Apportionment Situation in Congress," *Science*, December 14, 1928, at 580.

47. This argument does not establish in any way that Hill's method is unbiased. It merely says that, of the five methods, Hill's favors small states less than two methods and favors small states more than two other methods. See Stipulation 69.

48. Huntington's views were challenged by the prominent statistician Professor Walter Willcox of Cornell. Willcox, who was at various times president of the American Statistical Association and the American Economic Association, argued that Webster's method is even-handed in its treatment of small and large states while Hill's is biased toward small states. Instead of relying on abstract mathematical arguments, as Huntington did, Willcox demonstrated this point by analyzing data. He prepared tables and diagrams showing how the small and the medium and the large states fared individually, and as groups, under each of the five methods. He concluded that "if the main purpose is, as it

probably was in the Constitutional Convention of 1787 to hold the balance even between the large and the small States as groups, that end is best secured by the method of [Webster]." U. S. Congress. House, *Apportionment of Representatives*, 1928, at 61, from a memorandum submitted by Walter F. Willcox, dated February 21, 1928; *Fair Representation* at 55.

49. Congress was understandably confused by these rival claims and turned for advice to the National Academy of Sciences. The Academy appointed a committee of four prominent mathematicians to study the matter. In their 1929 Report to Congress, the committee repeated Huntington's arguments: "There are five methods of apportionment now known which are unambiguous . . . and should be considered at this time. These five methods are [Adams, Dean, Hill, Webster, Jefferson]. In the present state of knowledge your committee regards these as the only methods of apportionment avoiding the so-called Alabama paradox which require consideration at this time. . . . Each method in the list favors the larger States as compared with the methods which precede it. This means in the case of the second [Dean] and fourth [Webster] methods, for example, that if for two unequal States A, B, the fourth method assigns more Representatives to A and fewer to B than the second method, then the State A is the larger of A and B. The method of [Dean] and the method of [Webster] are symmetrically situated on the list. . . . A similar symmetry exists for the methods of [Adams] and [Jefferson] for which the [measures of inequality] seem, however, more artificial than those for any one of the other three methods. The method of equal proportions is preferred by the committee because it satisfies the [relative difference] test . . . when applied either to sizes of congressional districts or to numbers of Representatives per person, and because it occupies mathematically a neutral position with respect to emphasis on larger and smaller States." This opinion was reiterated in a 1948 report by another National Academy of Sciences committee. Stipulations 69 & 70.

50. The claim of mathematical "neutrality" therefore amounted to nothing more than the observation that Hill's method ranked third in a list of five methods. This argument does not in fact demonstrate that Hill's method is unbiased. Moreover, it is not clear that Congress acted on or accepted this argument. In 1941, the adoption of Hill's method over Webster's had the effect of giving one more seat to Arkansas (in that period a predominantly Democratic state) and one less to Michigan, a state which in that period tended to vote Republican. Every Democrat in the House, except those from Michigan, voted for the change to Hill's method, and every Republican voted against.

51. An apportionment method is *biased* towards a state or class of states if, over many apportionments, it tends to give the residents of these states more than their fair share of representation on average. Similarly, a method is biased against a class of states if, over many apportionments, it tends to give their residents less than their fair share of representation on average.

52. Bias in an apportionment method only becomes apparent by looking at its results over many different censuses. A simple test of bias is the following. In each census, compute the percentage difference between the number of seats that each state received and the state's quota. This is the state's percentage deviation from the ideal. It is the same as the percentage difference between the state's average share of a representative and the national average share of a representative. For each state compute the average percentage deviation from the ideal over many different censuses. If the result is positive the state was favored on average, if negative it was disfavored on average. An apportionment method is unbiased if, over many censuses, the average percentage deviation from the ideal is close to zero for every state.

53. The twenty-one historical United States censuses from 1790 to 1990 provide a natural source of data to test for the presence of bias in various apportionment formulas. If Hill's method had been used throughout this period, the residents of Massachusetts would have received, on average, about .8 percent less representation than their ideal share. On the other hand, if Webster's method had been used throughout this period, the residents of Massachusetts would have received, on average, almost exactly their ideal share. -

54. Massachusetts is not the only large state that, on average, would have been under-represented over the years under Hill's method. (Massachusetts received less than its quota of seats in five out of the six censuses since 1941. Stipulation 83.). Under Hill's method, the residents of the large states would have received less than the national average share and the residents of the small states would have received more than the national average share, over the twenty-one historical censuses on average. This is true even after allowing for the constitutional provision of a minimum of one seat per state.

55. To verify this proposition, I considered each census from 1790 to 1990 and divided the states into four categories. The "very small" states are those with a quota less than .5. The Constitution mandates that these states receive one seat each no matter how small their quotas, so they will necessarily be favored in any constitutional apportionment. After

setting these states aside, I divided the remaining states into three approximately equal-sized groups: large, medium, and small.¹

56. In any given apportionment the large states are favored as a group if their residents' average share of a representative is more than the ideal (the national average share of a representative). They are disfavored as a group if their residents' average share of a representative is less than the ideal. Similarly the small states are favored as a group if their residents' average share of a representative is more than the ideal; they are disfavored as a group if their residents' average share of a representative is less than the ideal.

57. Every method will sometimes favor the large states as a group and sometimes favor the small states as a group, depending on how the population counts happen to fall. An unbiased method will sometimes favor the small states and sometimes favor the large states, but over many apportionments these advantages and disadvantages will more or less balance out. A biased method, by contrast, will show a systematic tendency to favor one group or another over many apportionments.

58. Since it was adopted in 1941, Hill's method gave the residents of small states, on average, over 6 percent more representation per capita than it did to residents of large states. If Hill's method had been used in all twenty-one historical censuses from 1790 to 1990, it would have given, on average, over 3.3 percent more representation per capita to residents of small states than to residents of large states. These results provide concrete evidence that Hill's method is biased against the large states.

59. The state of Montana is proposing to replace Hill's method with either Dean's method or Adams' method. But these two methods are even more biased towards small states than Hill's. Over the twenty-one historical censuses, Dean's method would have given, on average, over 5 percent more representation per capita to the small states than to the large states. Adams' method would have given, on average, over 18 percent more representation per capita to the small states than to the large states.

60. The Webster method would have produced much more even-handed results than Adams, Dean, or Hill. If Webster's method had been used in all twenty-one historical

¹ If the number of states remaining after the very small states are deleted is not divisible by three, then the "medium" category of states takes up the extras.

censuses, then on average it would have given less than one-half of one percent more representation per capita to residents of small states as compared to residents of large states.

61. Moreover, in every single census the percentage difference between a person's share of a representative in large states and a person's share of a representative in small states would have been smaller, and at least not larger, under Webster's method than under any of the other three methods. In this sense, the Webster apportionments would have come at least as close, and often closer, to meeting the ideal of one person one vote than the Hill, Dean, or Adams apportionments.

62. These results are buttressed by theoretical calculations. It can be shown that, in a variety of statistical models, Webster's method is the least biased of all divisor methods. *Fair Representation* at 118-128. These same models show that Hill's method is biased toward the small states. The magnitude of this bias can be estimated theoretically. Under the current distribution of seats, Hill's method can be expected to give between 3 and 4 percent more representation per capita to the small states than to the large states over many apportionments. The Webster method can be expected to exhibit no discernible bias toward either the small states or the large states over many apportionments. Computer simulations support this observation. M. L. Balinski and H. P. Young, *Evaluation of Apportionment Methods*, report prepared under Contract No. CRS 84-15 for the Congressional Research Service of the Library of Congress, Washington, D.C., 1984. Such simulations would have been difficult if not impossible to carry out by the National Academy of Sciences committees in 1929 and 1948 because they lacked modern computing technology.

63. Thus theoretical calculations, computer simulations, and empirical evidence provided by historical census data all support the conclusion that Webster's method is substantially less biased than Hill's method.

VII. CONCLUSION

64. In summary, Webster's method is superior to Hill's method for three reasons. First, Webster apportionments bring each person's share of representation as near equality as possible no matter in what state they reside. Second, Webster apportionments bring the states as close to their shares (quotas) as possible: no state can be brought closer to its quota without moving some other state further from its quota, whether measured in absolute or percentage terms. Hill apportionments do not meet this standard. Indeed, it may be shown that Webster's method is the only divisor method that does meet this standard. Third, Webster's method comes closer to treating large states and small states evenhandedly. The empirical evidence based on twenty-one censuses is that Hill's method would have awarded, on average, over 3.3 percent more representation to residents of small states than to residents of large states. Over these twenty-one censuses Webster's method would have given, on average, less than half of one percent more representation to residents of small states than to residents of large states. Theoretical models suggest that, over a long series of apportionments, Hill's method will give on average between 3 and 4 percent more representation to residents of small states than to residents of large states, given the current distribution of seats among the fifty states. These same models suggest that, over a long series of apportionments, the Webster method would have no discernible bias in favor of either small or large states. *Fair Representation* at 127-8. Computer simulations over a thousand hypothetical apportionments support the proposition that Webster's method has no discernible bias toward small or large states, whereas Hill's method is biased toward small states. Balinski and Young report to the Congressional Research Service.

65. For these three reasons, Webster's method comes closer than any other method (and in particular closer than the methods of Hill, Dean, and Adams) to meeting the constitutional standard of one person one vote, and to achieving equal representation as nearly as practicable.

Signed under the penalties of perjury this 10th day of February, 1992.


H. Peyton Young

October, 1991

H. PETTON YOUNG
Curriculum Vitae

PERSONAL

Born: March 9, 1945 Evanston, IL

Home: 2711 34th Place, NW
Washington, DC 20007

Phone: 202-333-9367

EDUCATION

B.A. - 1966, Cum Laude in General Studies, Harvard University
Ph.D. - 1970, Mathematics, University of Michigan

POSITIONS HELD

1982-Present Professor of Public Policy and Applied Mathematics,
University of Maryland, College Park, Maryland 20742

1976-1982 Research Scholar, International Institute for Applied
Systems Analysis, Laxenburg, Austria. Deputy
Chairman of the System and Decision Sciences Area

1971-1975 Graduate School of the City University of New York.
Assistant, then Associate Professor of Mathematics

1971 National Water Commission, Arlington, Virginia

VISITING POSITIONS

1988-89 Guest Scholar, The Brookings Institution, Washington, DC

1987 Graduate School of Business, University of Chicago

1981 Center for Mathematics and Decision Theory,
University of Paris

1978 University of Bonn

BOOKS

Fair Representation (with M.L. Balinski). New Haven, Conn.: Yale University Press, 1982.

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Fair Allocation Proceedings of Symposia in Applied Mathematics, Volume 33. Providence, R.I.: The American Mathematical Society, 1983.

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B. Economic Theory

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C. Natural Resources Economics

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D. Mathematics

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PAPERS SUBMITTED FOR PUBLICATION

"The Evolution of Conventions," June 1991

"Sharing The Burden of Global Warming," August 1991

"An Evolutionary Model of Bargaining," September 1991

PREPARED TESTIMONY FOR GOVERNMENT AGENCIES

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RESEARCH GRANTS

Army Research Office, 1973-1974
National Science Foundation, 1975-1986, 1990-91
Office of Naval Research, 1986-1989
Russell Sage Foundation, 1989-1991

PROFESSIONAL ACTIVITIES

Associate Editor, Games and Economic Behavior, Social Choice and Welfare
Member, United States Advisory Committee for ILASA
Member, Econometric Society
Member, Operations Research Society of America
Member, American Economic Association
Member, American Political Science Association

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

COMMONWEALTH OF MASSACHUSETTS,
EDWARD F. BERLIN and
KAREN J. KEPLER,

Plaintiffs,

v.

ROBERT MOSBACHER, as Secretary
of the United States Department
of Commerce; MICHAEL DARBY,
as Undersecretary of Economic
Affairs of the United States
Department of Commerce; THE
BUREAU OF THE CENSUS; BARBARA
BRYANT, as Director of the
Bureau of the Census;
GEORGE HERBERT WALKER BUSH, as
President of the United States;
and DONNARD K. ANDERSON, as
Clerk of the United States House
of Representatives

Defendants.

Civil Action No:
91-11234 WD

STIPULATION OF FACTS

The parties stipulate, for purposes of this litigation only, that the facts set forth in these stipulations are true. By so stipulating, the parties do not admit that anything set forth herein, or in any document referenced in or attached to this Stipulation, is relevant or material to any issue in this case. As to the documents attached as Exhibits to this Stipulation or referenced in the Administrative Record, the parties stipulate that those documents are true and authentic copies of the originals, were authored by the agencies and/or

to identify a home of record, legal residence, and last duty station. As with military personnel records, home of record was used first, then legal residence, and finally last duty station. Other federal agencies were instructed to determine the home states of their employees, and their dependents, stationed overseas, based solely on their administrative records.

58. In conducting the 1990 census, the Census Bureau did not require or verify that federal overseas employees and their dependents were apportioned to the state in which they had elected to vote. Nor did the Census Bureau require or verify that individuals in the United States were apportioned to the state in which they had elected to vote.

APPORTIONMENT FORMULAS

59. The Census Bureau conducts the decennial census to determine the whole number of persons in each state, and then calculates the apportionment of seats in the U.S. House of Representatives among the states. The calculation of the apportionment is based upon the method of equal proportions, also known as the Hill-Huntington method (hereinafter the "Hill method"), as required by Title 2, United States Code, Sections 2a(a), 2b. These results then are conveyed to the President through the Secretary of Commerce. The President then transmits to the United States Congress (the Congress) a statement of the whole number of persons in each state and the

THE STIPULATIONS RELATING TO FACTS WHICH ARE
IRRELEVANT TO THE ISSUES BEFORE THIS COURT HAVE BEEN OMITTED.

number of representatives in the Congress to which each state is entitled, as ascertained under the decennial census. The Clerk of the U.S. House of Representatives (the House) then notifies each state (via a Certificate of Entitlement) of the number of representatives in Congress to which it is entitled.

60. The Congress has legislated four methods for apportionment since the first census of 1790. In 1941, Congress codified in Title 2 of the United States Code laws that govern the method currently used and the process for apportionment. Article I, Section 2 of the Constitution requires that Congress apportion House seats according to population, but does not allow for fractional House seats nor districts which cross state lines. Congress must apply some method to round off each state's otherwise fractional number of seats.

61. In 1792 Congress legislated use of the Jefferson method (also known as the method of greatest divisors) of apportionment after the first census in 1790. This method was used after each subsequent census through 1830. Under this method, the population of each state was divided by a fixed ratio (a pre-specified number of persons per representative) and the resulting integer was the size of the state's delegation, regardless of the size of the fractional remainder. For example, if the ratio for a particular state was 3.4, the state would receive 3 representatives. If the ratio was 3.9, the state still would receive 3

representatives. This method did not require that the size of the House, i.e., the total number of representatives, be a fixed number (in fact, the method would have to be modified for use with a fixed House size). Instead, the size of the House was the sum of the number of representatives given to each state using the above method. The size of the House grew over time based on apportionments following the 1790, 1800, 1810, 1820, and 1830 censuses.

62. Following the 1840 census, the Congress legislated use of the Webster method (also known as the method of major fractions (hereinafter "Webster method")) for the apportionment calculation. As then employed, with no mandate that the size of the House be fixed, it used a fixed ratio (of a pre-specified number of persons per representative), but an additional seat was assigned for each fractional remainder greater than one-half. For example, if the ratio for a state was 3.2, the state received 3 representatives. But if the ratio was 3.9 (or anything greater than 3.5, but less than 4.5), the state received 4 representatives. This method also did not require that the size of the House be a fixed number (and in fact would need to be modified for use with a fixed House size); the total number of representatives again was the sum of the representatives allocated to each state under this method.

63. Congress legislated use of the Vinton method (also known as the Hamilton method) for apportionment following the

censuses of 1850 through 1900. It utilized a fixed number of representatives. In this method, the apportionment population of the United States was divided by the fixed size of the House to derive a national-average-size Congressional district. The population of each state was then divided by this national-average-size Congressional district to obtain an exact quota of representatives. (This is known as the "House seat quota"). One representative was assigned to each state whose exact quota was less than one (to meet the Constitutional requirement that each state receive at least one representative). The other states (having quotas greater than or equal to 1.0) were assigned a seat for each whole number of their respective quotas, and any remaining seats were assigned on the basis of the highest fractional remainders for those states. Under this method, it is mathematically possible that a state could receive fewer seats if the size of the House were increased and the population of all states remained constant. This anomaly is known as the "Alabama paradox", because it was observed that for the 1880 census, Alabama would receive eight seats with a House size of 299 and seven seats with a House size of 300 by the use of the Vinton method.

64. In 1910, Congress legislated use of the Webster, or major fractions, method. Congress also fixed House membership at 433, with the proviso that "if the Territories of Arizona and New Mexico shall become States in the Union before the apportionment of Representatives under the next decennial

census they shall have one Representative each.... " 37 Stat. 14 (1911). Both Arizona and New Mexico became states in 1912 and House membership has been 435 since that time, except when it was increased temporarily when Alaska and Hawaii became states in 1959.

65. Congress could not decide on an apportionment plan following the 1920 census, but in 1929 passed a law that made reapportionment automatic, using whatever method was used for the previous apportionment in the event the Congress did not agree on another method.

66. Using results of the 1930 census, both the Hill method and the Webster method produced the same apportionment. The Congress did not legislate any method of apportionment, so as a result of the 1929 legislation, the apportionment for 1930 was automatic and was based upon the Webster method (because it had been used for the previous (1910) apportionment).

67. In January 1941, the President transmitted to Congress apportionments based upon both the Hill method and the Webster method. The methods produced the same apportionment except for two states, Arkansas and Michigan. The Hill method resulted in an additional seat for Arkansas; the Webster method resulted in an additional seat for Michigan. Congress debated the apportionment methodologies and enacted legislation adopting the Hill method, by a vote in which every Democrat (except those from Michigan) voted for, and every Republican voted against, the bill. No legislation affecting the method of

apportionment has been passed by Congress since 1941. As a result, the Hill method has been used for each subsequent apportionment, including 1990.

68. One of the products of the lengthy debates in the Congress regarding apportionment following the 1920 census, was the Congress' commissioning the National Academy of Sciences (NAS) to prepare a report "regarding the mathematical aspects of the problem of reapportionment". The report of the Committee on Apportionment discussed five methods "now known which are unambiguous (that is, lead to a workable solution)": smallest divisors (Adams method), harmonic means (Dean method), equal proportions (Hill method), major fractions (Webster method), and greatest divisors (Jefferson method). With a fixed House size, apportionments under these five methods are calculated using formulas involving each state's apportionment population and a divisor which determines each state's priority for its next seat (after one seat is assigned to each state). The divisors for the different formulas are functions of the number of seats already assigned to a given state which vary according to specific goals that each method is designed to achieve.

69. The report of the National Academy of Sciences committee, submitted to Congress in 1929, stated that the committee preferred the Hill method. The report analyzed five methods: Adams, Dean, Hill, Webster and Jefferson. It listed them in the order in which they "favor the larger States as

compared with the methods which precede it" (the Adams method favoring the small states the most, Jefferson's favoring the large states the most, and the Hill method listed third among the five); and stated that Hill's method "occupies mathematically a neutral position with respect to emphasis on larger and smaller states". (Report of the National Academy of Sciences Committee On Apportionment from the Annual Report of the National Academy of Sciences, Fiscal Year 1928-29, pp. 20-23).

70. In 1948, Congress asked the National Academy of Sciences to re-examine the various apportionment methods. An NAS committee concurred with the conclusion of the 1929 report.

71. Following both the 1970 and 1980 decennial censuses, Congress conducted hearings regarding methods of Congressional apportionment.

72. The apportionment method used in 1990, pursuant to Congressional legislation in force since 1941, was the Hill method. Using this method, Massachusetts received 10 seats under the apportionment based on the 1990 census.

73. If the Webster method for apportionment based on the 1990 census had been used (either excluding or including the counts of overseas military, other Federal employees, and dependents), Massachusetts would have received 11 seats. The Webster method may be applied as follows: a) A divisor would be found by dividing the apportionment population by 435 (the

total number of seats) to produce the national average size district. b) Each state's apportionment population would then be divided by the above divisor to obtain a quotient consisting of a whole number (possibly zero) and a fraction. c) If a state's quotient was less than 1.0, it would be rounded up to 1.0 no matter how small the fraction. d) For all other states (those with a quotient greater than or equal to 1.0), fractions less than one-half (0.5) would be rounded down, and fractions greater than one-half (0.5) would be rounded up. e) If the whole numbers resulting from this process summed to 435, the apportionment would be determined and no alteration of the divisor would be needed. f) If too many seats, or too few seats, were allocated by this process, the divisor would be made larger or smaller, respectively, until the total number of whole numbers achieved after rounding was equal to 435.

74. Under the Hill method, 1) each state first receives one Representative, as required under the Constitution. 2) A series of priority values is calculated for each state from which can be determined the state's entitlement to a second Representative, a third, and so on. 3) When the priority values are arranged in sequence (from highest to lowest), they indicate which state should get the 51st Representative, which the 52nd, etc. up through the 435th Representative. 4) The priority values are determined by multiplying the apportionment population of each state by the reciprocal of the geometric mean of the number of seats already assigned, a , and the next

integer, $a+1$, i.e., 1 divided by the square root of the quantity $a(a+1)$. Alternatively, the apportionment under the Hill method could be obtained as described in paragraph 73 for the Webster method, with one-half (0.5) replaced by the following quantity: the square root $a(a+1)$, minus a , where a is the largest integer not exceeding the state's quotient. For example, if the quotient is 2.7, then the square root of (2×3) minus 2 is approximately 0.449.

75. For quotients greater than one, the Hill rounding point is less than .50. The larger the whole number in a state's quotient, the larger is the Hill rounding point. For example, if a state's quotient falls between 1 and 2, then its Hill rounding point is the square root of 1×2 , minus 1, which is approximately .414. If a state's quotient falls between 20 and 21, then its Hill rounding point is the square root of 20×21 , minus 20, which is approximately .494.

76. For quotients greater than one, the Webster rounding point is always .50 exactly.

77. The rounding points in the previous two paragraphs are not always indicative of how the Webster and Hill methods would round the exact quota of a state. For the 1990 census, New York, New Jersey, Massachusetts, and Oklahoma have exact quotas of 31.521, 13.536, 10.532 and 5.516, respectively. The fractional portion of the quota for each of these four states is above the rounding points for both the Webster and the Hill methods. Yet, the Webster method rounds down the exact quota

for each of these states except Massachusetts and the Hill method rounds down the exact quota for each of these states except Oklahoma. Other examples exist in previous censuses where the exact quota is below the rounding point for both Webster and Hill and where either the Hill or Webster methods, or both, round up the exact quota.

78. If the Webster and Hill methods yield different apportionments, then the Hill method, as compared with the Webster method, awards fewer seats to the state or states with larger populations and more seats to the state or states with smaller populations. For example, in 1990, Webster's method gives one more seat to Massachusetts, which has a larger population, rather than to Oklahoma, which is given the extra seat under the Hill method.

79. Exhibit D displays the number of seats which would have been apportioned to Massachusetts based on the 1990 census under seven different apportionment methods. The number of seats that Massachusetts would receive varies depending on the method used and whether the overseas military, Federal employees, and dependents are included (Apportionment Population) or excluded (Resident Population).

80. By dividing the apportionment population by the total number of seats in the House of Representatives (435), a national-average-size congressional district can be obtained.

81. When the national-average-size congressional district is divided into the apportionment population of a state, the

mathematical result is that there is (except for the three smallest states) a whole number of congressional seats plus a fraction of a seat, known as the "House seat quota."

82. All methods of apportionment result in House seat quotas which contain fractions which must be rounded to whole numbers. Any rounding of a House seat quota results in some states receiving more seats than their House seat quota and some states receiving less seats than their House seat quota.

83. Exhibit E displays Massachusetts' House seat quota and the number of seats which would have been apportioned to it under the Hill and Webster methods from 1940 - 1990.

84. According to 1990 decennial census, Massachusetts was the thirteenth most populous state.

85. Massachusetts has been among the thirteen most populous states according to every decennial census since 1940.

86. In every one of the six apportionments from 1940-1990, the total number of seats allotted to the thirteen most populous states by the Hill method was less than the sum of their House seat quotas. In five out the six apportionments from 1940 - 1990, the total number of seats allotted to the thirteen most populous states by the Webster method was less than the sum of their House seat quotas.

87. Under the 1990 Census, Massachusetts will receive twelve electoral votes under the Hill method. Under the Webster method it would receive thirteen electoral votes.

DATED this 1st day of November, 1991.

Dwight Golann

Dwight Golann
William P. Lee
Steve Berenson
Assistant Attorneys General
One Ashburton Place, Rm. 2019
Boston, MA 02108-1698
(617) 727-2200

John P. Driscoll, Jr.
Edward P. Leibensperger
Neil P. Motenko

John P. Driscoll, Jr.
Edward P. Leibensperger
Neil P. Motenko
Special Assistant Attorneys
General
Nutter, McClennen & Fish
One International Place
Boston, MA 02110-2669
(617) 439-2000

Counsel for Plaintiffs

5348e

Sandra Schraibman

Sandra Schraibman
Mark H. Murphy
Attorneys, Dept. of Justice
Civil Division, Room 3708
10th & Pa. Ave., N.W.
Washington, D.C. 20530
(202) 514-5124

Counsel for Executive Branch
Defendants

Exhibit D

POSSIBLE 1990 APPORTIONMENTS FOR MASSACHUSETTS UNDER VARIOUS METHODS

EXACT Q ADAM HARM EQPR WEBS JEFF HAM

Apportionment 10.532 10 10 10 11 11 11

Population

Resident

Population 10.549 10 10 11 11 11 11

EXACT Q = EXACT QUOTA (The integer and fraction of seats due a state given its population)

ADAM = ADAMS (SMALLEST DIVISORS) METHOD - Never used

HARM = DEAN (HARMONIC MEAN) METHOD - Never used

EQPR = EQUAL PROPORTIONS (HILL) METHOD - Used 1940-1990

WEBS = WEBSTER (MAJOR FRACTIONS) METHOD - Used 1840, 1880-1910, 1930

JEFF = JEFFERSON (GREATEST DIVISORS) METHOD - Used 1790-1830

HAM = HAMILTON/VINTON METHOD - Used 1850-1870

MASSACHUSETTS' CONGRESSIONAL ALLOCATION 1940-1990

	<u>Quota</u>	<u>Hill</u>	<u>Webster</u>
1940	14.333	14	14
1950	13.612	14	14
1960	12.543	12	13
1970	12.208	12	12
1980	11.049	11	11
1990	10.532	10	11

CRS Report for Congress

House Apportionment Following The 1990 Census: Using the Official Counts

David C. Huckabee
Analyst in American National Government
Government Division

February 4, 1991



HOUSE APPORTIONMENT FOLLOWING THE 1990 CENSUS: USING THE OFFICIAL COUNTS

SUMMARY

An allocation of House seats based on official 1990 census State apportionment counts released by the Census Bureau on December 26, 1990, suggests that 19 seats will shift among 21 States if these totals are not altered by a decision to adjust the census for miscounts.

If no adjustment occurs or each State's share of the total apportionment count is not significantly altered from that experienced in the apportionment numbers, the gaining States will be: Arizona (+1), California (+7), Florida (+4), Georgia (+1), North Carolina (+1), Texas (+3), Virginia (+1), and Washington (+1). The losers will be: Illinois (-2), Iowa (-1), Kansas (-1), Kentucky (-1), Louisiana (-1), Massachusetts (-1), Michigan (-2), Montana (-1), New Jersey (-1), New York (-3), Ohio (-2), Pennsylvania (-2), and West Virginia (-1).

There is a slight possibility that the apportionment allocations might be altered if there is a statistical adjustment of the census to account for miscounts of people. The Secretary of Commerce has until July 15, 1991, to announce whether there will be such an adjustment.

Other ways the apportionment could change include the remote possibilities that the House size could be changed (permanently fixed by law at 435 since after the 1910 census), or the apportionment formula could be altered. Either or both these options would require changes in statutory law.

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HOUSE APPORTIONMENT FOLLOWING THE 1990 CENSUS: USING THE OFFICIAL COUNTS

INTRODUCTION

The release of the official census apportionment counts at the end of December 1990 provides the first opportunity to see how many House seats will be assigned to each State using official 1990 census figures, if there is no statistical adjustment for miscounts.¹ If no adjustment occurs, or each State's share of the total apportionment count is not significantly altered from that experienced in the apportionment numbers, the gaining States will be: Arizona (+1), California (+7), Florida (+4), Georgia (+1), North Carolina (+1), Texas (+3), Virginia (+1), and Washington (+1). The losers will be: Illinois (-2), Iowa (-1), Kansas (-1), Kentucky (-1), Louisiana (-1), Massachusetts (-1), Michigan (-2), Montana (-1), New Jersey (-1), New York (-3), Ohio (-2), Pennsylvania (-2), and West Virginia (-1).

In addition reporting which States were closest to gaining or losing additional Representatives using the official counts, this analysis also shows how the decision to include foreign-based Federal employees affected the apportionment as well. Data are also provided on other ways the apportionment could change including the remote possibilities that the House size could be altered, or the apportionment formula could be modified.

THE OFFICIAL APPORTIONMENT

Table 1 reports the House seat allocations based on the official apportionment numbers. The figures differ from the *resident population* of the States because the apportionment population includes Federal employees stationed overseas (including military personnel) and the resident population does not. These counts indicate that 19 seats will shift among 21 States—two more seats than the change following the 1980 census. A 19 seat shift is

¹ The "apportionment population" of the United States in 1990 includes all persons residing in the fifty States plus foreign-based military and civilian Federal employees. The 1990 Apportionment population of 249,022,783 includes 919,810 foreign-based Federal employees. The criteria by which these Federal workers were allocated to the States is described in: U.S. Library of Congress. Congressional Research Service. *The 1990 Census: Including Foreign-based Military and Civilian Personnel in the State Counts*. Report 90-305 GOV, by David C. Huckabee. Washington, 1990.

three to four more seats than was expected based on the most recent population projections prepared by the Census Bureau (early in 1990.)²

TABLE 1. House Apportionment Based on the Official 1990 Apportionment Population Counts

State	1980 apportionment population *	1990 apportionment population *	Percent difference from 1980	Seats (and change from 1980)
Alabama	3,890,061	4,062,608	4.25	7
Alaska	400,481	551,947	27.44	1
Arizona	2,717,866	3,677,985	26.10	6 (+1)
Arkansas	2,285,513	2,362,239	3.25	4
California	23,668,562	29,839,250	20.68	52 (+7)
Colorado	2,888,834	3,307,912	12.67	6
Connecticut	3,107,576	3,295,669	5.71	6
Delaware	595,225	668,696	10.99	1
Florida	9,739,992	13,003,362	25.10	23 (+4)
Georgia	5,464,265	6,508,419	16.04	11 (+1)
Hawaii	965,000	1,115,274	13.47	2
Idaho	943,935	1,011,986	6.72	2
Illinois	11,418,461	11,466,682	.42	20 (-2)
Indiana	5,490,179	5,564,228	1.33	10
Iowa	2,913,387	2,787,424	-4.52	5 (-1)
Kansas	2,363,208	2,485,600	4.92	4 (-1)
Kentucky	3,661,433	3,698,969	1.01	6 (-1)
Louisiana	4,203,972	4,238,216	.81	7 (-1)
Maine	1,124,660	1,233,223	8.80	2
Maryland	4,216,446	4,798,622	12.13	8
Massachusetts	5,737,037	6,029,051	4.84	10 (-1)
Michigan	9,258,344	9,328,784	.76	16 (-2)
Minnesota	4,077,148	4,387,029	7.06	8
Mississippi	2,520,638	2,586,443	2.54	5
Missouri	4,917,444	5,137,804	4.29	9

² The Census Bureau released four different population projections for 1990—each based on different assumptions. Series A and C indicated a 16 seat shift, whereas series B and D showed 15 seats. The data used to compute these apportionments was from: U.S. Dept. of Commerce. Bureau of the Census. *Projections of the Populations of States by Age, Sex and Race: 1989 to 2010*. Current Population Reports. Population Estimates and Projections. Series P-25, No 1053 by Signe I. Wetrogan. 1990.

TABLE 1. House Apportionment Based on the Official 1990 Apportionment Population Counts—Continued

State	1980 apportionment population *	1990 apportionment population *	Percent difference from 1980	Seats (and change from 1980)
Montana	786,690	803,655	2.11	1 (-1)
Nebraska	1,570,006	1,584,617	.92	3
Nevada	799,184	1,206,152	33.74	2
New Hampshire	920,610	1,113,915	17.35	2
New Jersey	7,364,158	7,748,634	4.96	13 (-1)
New Mexico	1,299,968	1,521,779	14.58	3
New York	17,557,288	18,044,505	2.70	31 (-3)
North Carolina	5,874,429	6,657,630	11.76	12 (+1)
North Dakota	652,695	641,364	-1.77	1
Ohio	10,797,419	10,887,325	.83	19 (-2)
Oklahoma	3,025,266	3,157,604	4.19	6
Oregon	2,632,663	2,853,733	7.75	5
Pennsylvania	11,866,728	11,924,710	.49	21 (-2)
Rhode Island	947,154	1,005,984	5.85	2
South Carolina	3,119,208	3,505,707	11.02	6
South Dakota	690,178	699,999	1.40	1
Tennessee	4,590,750	4,896,641	6.25	9
Texas	14,228,383	17,059,805	16.60	30 (+3)
Utah	1,461,037	1,727,784	15.44	3
Vermont	511,456	564,964	9.47	1
Virginia	5,346,279	6,216,568	14.00	11 (+1)
Washington	4,130,163	4,887,941	15.50	9 (+1)
West Virginia	1,949,644	1,801,625	-8.22	3 (-1)
Wisconsin	4,705,335	4,906,745	4.10	9
Wyoming	470,816	455,975	-3.25	1
Fifty State Total:	225,867,174	249,022,783	9.30	435 (19)

* The 1980 apportionment population is from: U.S. Dept. of Commerce. Bureau of the Census. 1980 Population and Number of Representatives by State. Memorandum. By Vincent P. Barabba. Dec. 31, 1981.

^b The 1990 apportionment population is from: Barringer, Felicity. Census Bureau Places Population at 249.6 Million. New York Times, Dec. 27, 1990, p. A1. The percent differences and the apportionment totals were calculated by CRS. The 1990 apportionment population includes foreign-based Federal employees. The 1980 apportionment population does not.

THE APPORTIONMENT PROCESS

The reapportionment process for the House relies on rounding principles, but the actual procedure involves computing a "priority list" of seat assignments for the States. The constitution allocates the first fifty seats because each State must have at least one Representative.³ A priority list assigns the remaining 385 seats (for a total of 435, see Appendix 1). The priority list method has been used by the Census Bureau to apportion the House since early in the 20th Century. It is a useful tool for identifying the States that nearly lost a House seat or those just missing gaining or retaining a seat.⁴

Table 2 extracts and enhances information from the priority list in Appendix 1 by showing which States were close to the 435th seat, and indicating approximately how many persons are needed by a State to either gain an additional seat (for States listed below sequence number 435) or lose a seat (those States above and including sequence number 435). For example, Table 2 shows that California's 52nd seat comes at priority sequence number 428 with 236,012 persons "to spare." These population additions or subtractions needed to gain or lose a seat assume that all other States' populations will remain constant—an unrealistic assumption given the likelihood that if one State's population is adjusted other States' populations will change as well. Thus the actual number of persons that California would need to receive 51 seats than 52, probably would not necessarily be 236,013 persons.

³ Article I, Section 3, of the Constitution as modified by clause 2 of the Fourteenth Amendment, requires that "Representatives and direct taxes shall be apportioned among the several States . . . according to their respective numbers."

⁴ The "priority list" rankings are calculated using the reciprocals of the geometric means of successive numbers ($1/\sqrt{n(n-1)}$), where "n" is the number of seats to be allocated to the State. The geometric mean (the square root of the product of two adjacent numbers) was chosen as the rounding point, rather than the arithmetic mean (the midpoint between two adjacent numbers), by the Congress in 1941. For a detailed explanation of how the apportionment formula works, see: U.S. Library of Congress. Congressional Research Service. *Apportioning Seats in the House of Representatives: The Method of Equal Proportions*. Report 88-143 GOV, by David C. Huckabee. Washington, 1988.

TABLE 2. Population Needed to Gain or Lose a Seat Using 1990 Census Apportionment Counts

Sequence	State	Official population	Seat	Priority value	Pop. needed to gain or lose a seat	Percent of State pop.
420	NY	18,044,505	31	591,702.60	-514,022	2.85
421	CA	29,839,250	51	590,905.18	-810,890	2.72
422	OH	10,887,325	19	588,719.10	-256,537	2.36
423	IL	11,466,682	20	588,228.36	-260,847	2.27
424	IN	5,564,228	10	586,520.84	-110,746	1.99
425	MN	4,387,029	8	586,241.20	-85,265	1.94
426	PA	11,924,710	21	581,866.26	-143,849	1.21
427	NC	6,657,630	12	579,472.22	-53,138	.80
428	CA	29,839,250	52	579,430.15	-236,012	.79
429	TX	17,059,805	30	578,381.53	-104,249	.61
430	MS	2,586,443	5	578,346.15	-15,648	.61
431	WI	4,906,745	9	578,265.19	-29,003	.59
432	FL	13,003,362	23	578,069.92	-72,494	.56
433	TN	4,896,641	9	577,074.42	-18,899	.39
434	OK	3,157,604	6	576,496.87	-9,036	.29
435	WA	4,887,941	9	576,049.11	-10,199	.21
436	MA	6,029,051	11	574,847.17	12,606	.21
437	NJ	7,748,634	14	574,366.50	22,700	.29
438	NY	18,044,505	32	572,913.58	98,757	.55
439	KY	3,698,969	7	570,763.16	34,257	.93
440	CA	29,839,250	53	568,392.42	401,958	1.35
441	MT	803,655	2	568,269.89	11,001	1.37
442	AZ	3,619,064	7	567,525.26	55,241	1.50
443	GA	6,508,419	12	566,485.07	109,882	1.69
444	LA	4,238,216	8	566,355.23	72,542	1.71
445	MI	9,328,784	17	565,640.60	171,662	1.84
446	MD	4,798,622	9	565,522.77	89,319	1.86
447	IL	11,466,682	21	559,516.78	338,812	2.95
448	TX	17,059,805	31	559,413.02	507,333	2.97
449	OH	10,887,325	20	558,507.97	341,940	3.14
450	CA	29,839,250	54	557,767.31	978,034	3.28

Data calculated by CRS on the Library of Congress' mainframe computer.

OFFICIAL NOTIFICATION

Apportionment Numbers

Whatever the apportionment outcome, the law requires certain things to happen once the President is notified of the results by the Secretary of Commerce. On the first day (or within one week thereafter) of the Congress

following the decennial census the President is obligated to send the Congress a "statement showing the whole number of persons in each State" and an apportionment of House seats by the method of equal proportions.⁵ Upon receipt of the President's message the Clerk of the House is directed to send "to the executive of each State a certificate of the number of Representatives to which [each] State is entitled" within fifteen calendar days after receiving the President's statement.⁶

Redistricting Numbers

Once the apportionment of House seats among the States is finished, States need to receive sufficiently detailed demographic data that they can draw new districts within the States. The Secretary of Commerce is directed to provide redistricting data "as expeditiously as possible after the decennial census" but no later than "one year after the decennial census date" (April 1).⁷ The April 1, 1991, deadline gives most States at least a year to complete redistricting in time to meet the filing deadlines for House races in 1992, but twenty States have filing deadlines before April 1, 1992. If the Secretary of Commerce decides to adjust the census (which he may do up to July 15, 1991) the States will have less time to complete redistricting before the 1992 elections.

ACTIONS THAT COULD CHANGE THE APPORTIONMENT

Adjustment

Although the State populations reported in this analysis are the official apportionment populations submitted by the Department of Commerce to the President, these numbers may be revised.⁸ The Census Bureau agreed in a July 1989 court stipulation to consider issuing figures adjusted for possible miscounts by July of 1991. If the figures are adjusted, there is a possibility that the apportionment could be affected besides shortening the period

⁵ 2 U.S.C. 2(a). The President sent the apportionment results of the 1990 Census to the Congress on January 3, 1991 (the first day of the 102nd Congress).

⁶ Ibid. The Clerk sent certificates showing how many Representatives each State was entitled to the Governors of each of the States on January 15, 1991.

⁷ 13 U.S.C. 141(c).

⁸ 13 U.S.C. 141(b) directs the Secretary of Commerce to report to the President within nine months of the Census date "the tabulation of total population by States . . . as required for the apportionment of Representatives in Congress among the several States."

available for the States for within-State redistricting.⁹ The stipulation provides that census results will have a notice that reads:¹⁰

The population counts set forth herein are subject to possible correction for undercount or overcount. The United States Department of Commerce is considering whether to correct these counts and will publish corrected counts, if any, not later than July 15, 1991.

The implications of a possible adjustment on the allocation of seats among the States is unclear. How, or if, such a revision would be made in the official apportionment totals has not yet been decided. The Secretary of Commerce has until July 15, 1991, to announce whether there will be such an adjustment.

Even if the population totals are adjusted, the apportionment may not change, but, the order in which the House seats are assigned to the States may be reshuffled. (Thus, if an adjustment occurs Washington may not be contending with Massachusetts for the last seat in the House as Table 2 and Appendix 1 suggest.) Small population differences can, and have, affected apportionments, however. In 1970, for example, fewer than 300 persons decided the last seat assigned in the House. (In theory, one person can make the difference.) In 1980, the last seat in the House was decided by 7,226 persons, and the seat shifted from Indiana to Florida after the release to the press of the unofficial State counts. Table 3 illustrates that the margin separating the States competing for the last seat in the House could have been nearly as close in 1990, as it was in 1970 if the Census Bureau had used the resident population rather than the resident population plus the foreign-based Federal employee component. Had the foreign-based federal civilian and military not been included in the official apportionment numbers, Massachusetts would have retained its 11th House seat, and Washington would not have gained its new 9th seat. Under this scenario, however, just

⁹ This agreement to consider adjusting the census for miscounts was in response to *The City of New York, et al. v. United States Department of Commerce, et al.*, 88 Civ. 3474 (JMcL). The lawsuit was brought on November 3, 1988 in the U.S. District Court for the Eastern District of New York. The suit was placed in abeyance when the plaintiffs and the Commerce Department agreed to a stipulation where the Commerce Department agreed to consider adjusting the Census.

¹⁰ U.S. Library of Congress. Congressional Research Service. *Adjusting the 1990 Census for Miscounts: An Analysis of the Implications of the Stipulation Agreed to in the New York Court Case*. Testimony of Daniel Melnick and David Huckabee. In: U.S. Congress. House. Committee on Post Office and Civil Service. Subcommittee on Census and Population. *Census Adjustment Lawsuit*, 101st Cong., 1st Sess., October 17, 1989. U.S. Govt. Print. off., 1989., p. 99.

1,033 fewer persons in Massachusetts or 835 more persons in Washington would make the apportionment the same as the one using the official numbers.

TABLE 3. Population Needed to Gain or Lose a Seat Using 1990 Census Resident Counts

Sequence	State	State resident population	Seat	Priority value	Pop. needed to gain or lose a seat	Percent of State pop.
420	NY	17,990,455	31	589,930.23	-499,685	2.78
421	CA	29,760,021	51	589,336.21	-797,422	2.68
422	OH	10,847,115	19	586,544.80	-240,410	2.22
423	IL	11,430,602	20	586,377.49	-250,153	2.19
424	MN	4,375,099	8	584,646.98	-83,080	1.90
425	IN	5,544,159	10	584,405.39	-103,032	1.86
426	PA	11,881,643	21	579,764.81	-127,470	1.07
427	CA	29,760,021	52	577,891.65	-223,847	.75
428	NC	6,628,637	12	576,948.70	-39,107	.59
429	WI	4,891,769	9	576,500.25	-25,077	.51
430	TX	16,986,510	30	575,896.60	-69,365	.41
431	MS	2,573,216	5	575,388.50	-8,245	.32
432	FL	12,937,926	23	575,160.93	-36,352	.28
433	TN	4,877,185	9	574,781.51	-10,493	.22
434	OK	3,145,585	6	574,302.51	-4,150	.13
435	MA	6,016,425	11	573,643.33	-1,032	.02
436	WA	4,866,692	9	573,544.90	835	.02
437	NJ	7,730,188	14	572,999.20	8,690	.11
438	NY	17,990,455	32	571,197.50	77,034	.43
439	KY	3,685,296	7	568,653.37	32,339	.88
440	CA	29,760,021	53	566,883.22	354,890	1.19
441	AZ	3,665,228	7	565,556.82	52,407	1.43
442	MT	799,065	2	565,024.27	12,189	1.53
443	LA	4,219,973	8	563,917.41	72,782	1.72
444	GA	6,478,216	12	563,856.24	112,445	1.74
445	MI	9,295,297	17	563,610.15	165,471	1.78
446	MD	4,781,468	9	563,501.16	86,059	1.80
447	IL	11,430,602	21	557,756.26	325,588	2.85
448	TX	16,986,510	31	557,009.58	507,261	2.99
449	OH	10,847,115	20	556,445.24	335,253	3.09
450	CA	29,760,021	54	556,286.33	928,559	3.12

Data calculated by CRS on the Library of Congress' mainframe computer.

Changing the House Size

The U.S. Constitution (Art. 1, Sect. II) mandates that "Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State." The requirement that districts must be apportioned *among* States means that district boundaries cannot cross State lines. The Constitution also sets a minimum size for the House of Representatives (one Representative for each State) and a maximum size for the House (one Representative for every 30,000 persons). Congress is free to choose a House size (with the concurrence of the President) within these boundaries. The House size increased in every decade except one in the 19th century to accommodate the growth in the country's population, but the permanent size of the House was fixed at 435 after the 1910 census.

If we set aside the issues of the efficacy of the proposal, changing the size of the House is the easiest means of significantly altering the allocation of seats among the States after a census. The 1990 census results provide a constitutional maximum of 8,301 seats (one for every 30,000 persons), and a minimum of 50 seats (one per State). If each State were to retain at least as many seats as it had after the 1980 census, the House size would have to be increased to at least 489. Table 3 displays the State-by-State results of a 489 seat apportionment. If such an increase were to occur: eleven States would gain an additional seat for the first time in comparison with a 435 seat apportionment (Alabama, Arkansas, Colorado, Indiana, Maryland, Minnesota, Missouri, Oregon, South Carolina, Tennessee and Wisconsin); four States who would lose seats under a 435 seat apportionment would each gain a seat (Illinois, Massachusetts, New Jersey, and New York); nine States would retain seats they would have otherwise lost (Iowa, Kansas, Kentucky, Louisiana, Michigan, Montana, Ohio, Pennsylvania, and West Virginia); and the remaining 30 seats of the 54 seat increase would be divided among States already gaining seats in a 435 seat apportionment. A 489 seat House would lower the average size district of 572,466 to 509,249—9,986 fewer persons than the 1980 average of 519,234.

TABLE 4. House Apportionment Based on the Official 1990 Apportionment Population Counts Allocating 489 Seats (No States Lose Seats Compared to 1980)

	1980 seat total based on a 435 seat House	1990 allocation (change from 1980)	
		Seat total based on a 435 seat House	Seat total based on a 489 seat House
Alabama	7	7	8 (+1)
Alaska	1	1	1
Arizona	5	6 (+1)	7 (+2)
Arkansas	4	4	5 (+1)
California	45	52 (+7)	59 (+14)

TABLE 4. House Apportionment Based on the Official 1990
Apportionment Population Counts Allocating 489 Seats
(No States Lose Seats Compared to 1980)—Continued

	1980 seat total based on a 435 seat House	1990 allocation (change from 1980)	
		Seat total based on a 435 seat House	Seat total based on a 489 seat House
Colorado	6	6	7 (+1)
Connecticut	6	6	6
Delaware	1	1	1
Florida	19	23 (+4)	26 (+7)
Georgia	10	11 (+1)	13 (+3)
Hawaii	2	2	2
Idaho	2	2	2
Illinois	22	20 (-2)	23 (+1)
Indiana	10	10	11 (+1)
Iowa	6	5 (-1)	6
Kansas	5	4 (-1)	5
Kentucky	7	6 (-1)	7
Louisiana	8	7 (-1)	8
Maine	2	2	2
Maryland	8	8	9 (+1)
Massachusetts	11	10 (-1)	12 (+1)
Michigan	18	16 (-2)	18
Minnesota	8	8	9 (+1)
Mississippi	5	5	5
Missouri	9	9	10 (+1)
Montana	2	1 (-1)	2
Nebraska	3	3	3
Nevada	2	2	2
New Hampshire	2	2	2
New Jersey	14	13 (-1)	15 (+1)
New Mexico	3	3	3
New York	34	31 (-3)	35 (+1)
North Carolina	11	12 (+1)	13 (+2)
North Dakota	1	1	1
Ohio	21	19 (-2)	21
Oklahoma	6	6	6
Oregon	5	5	6 (+1)
Pennsylvania	23	21 (-2)	23
Rhode Island	2	2	2
South Carolina	6	6	7 (+1)

TABLE 4. House Apportionment Based on the Official 1990
Apportionment Population Counts Allocating 489 Seats
(No States Lose Seats Compared to 1980)—Continued

	1980 seat total based on a 435 seat House	1990 allocation (change from 1980)	
		Seat total based on a 435 seat House	Seat total based on a 489 seat House
South Dakota	1	1	1
Tennessee	9	9	10 (+1)
Texas	27	30 (+3)	34 (+7)
Utah	3	3	3
Vermont	1	1	1
Virginia	10	11 (+1)	12 (+2)
Washington	8	9 (+1)	10 (+2)
West Virginia	4	3 (-1)	4
Wisconsin	9	9	10 (+1)
Wyoming	1	1	1
Fifty State Total:	435	435 (19)	489 (54)

Data calculated by CRS on the Library of Congress' mainframe computer.

Table 5 illustrates how well the present apportionment formula and House size allocates seats. If Representatives were apportioned to the States in same proportion as the State's population relates to the population of the 50 States, each State's share of that population would match its share of the House. Given the law that limits the House size to 435, and the requirement that districts cannot cross State lines, some deviation is inevitable.

TABLE 5. Allocation of 435 House Seats Compared to Each State's Share
of the Total Population of the Fifty States and the Amount that Each
State's Average Size District Deviates From the National Average

State	Population		Seats		Average size district	Percent above or below national average
	1990 apportion- ment pop.	Percent share of total	House seats (quota)*	Percent share of total		
Alabama	4,062,608	1.63	7 (7.10)	1.61	580,373	1.36
Alaska	551,947	.22	1 (.96)	.23	551,947	-3.72
Arizona	3,677,985	1.48	6 (6.42)	1.38	612,998	6.61
Arkansas	2,362,239	.95	4 (4.13)	.92	590,560	3.06
California	29,839,250	11.98	52 (52.12)	11.95	573,832	.24

TABLE 5. Allocation of 435 House Seats Compared to Each State's Share of the Total Population of the Fifty States and the Amount that Each State's Average Size District Deviates From the National Average—Continued

State	Population		Seats		Average size district	Percent above or below national average
	1990 apportionment pop.	Percent share of total	House seats (quota) ^a	Percent share of total		
Colorado	3,307,912	1.33	6 (5.78)	1.38	551,319	-3.84
Connecticut	3,295,669	1.32	6 (5.76)	1.38	549,278	-4.22
Delaware	668,696	.27	1 (1.17)	.23	668,696	14.39
Florida	13,003,362	5.22	23 (22.71)	5.29	565,364	-1.26
Georgia	6,508,419	2.61	11 (11.37)	2.53	591,674	3.25
Hawaii	1,115,274	.45	2 (1.95)	.46	557,637	-2.66
Idaho	1,011,986	.41	2 (1.77)	.46	505,993	-13.14
Illinois	11,466,682	4.60	20 (20.03)	4.60	573,334	.15
Indiana	5,564,228	2.23	10 (9.72)	2.30	556,423	-2.88
Iowa	2,787,424	1.12	5 (4.87)	1.15	557,485	-2.69
Kansas	2,485,600	1.00	4 (4.34)	.92	621,400	7.87
Kentucky	3,698,969	1.49	6 (6.46)	1.38	616,495	7.14
Louisiana	4,238,216	1.70	7 (7.40)	1.61	605,459	5.45
Maine	1,233,223	.50	2 (2.15)	.46	616,612	7.16
Maryland	4,798,622	1.93	8 (8.38)	1.84	599,828	4.56
Massachusetts	6,029,051	2.42	10 (10.53)	2.30	602,905	5.05
Michigan	9,328,784	3.75	16 (16.30)	3.68	583,049	1.82
Minnesota	4,387,029	1.76	8 (7.66)	1.84	548,379	-4.39
Mississippi	2,586,443	1.04	5 (4.52)	1.15	517,289	-10.67
Montana	803,655	.32	1 (1.40)	.23	803,655	28.77
Nebraska	1,584,617	.64	3 (2.77)	.69	528,206	-8.38
Nevada	1,206,152	.48	2 (2.11)	.46	603,076	5.08
New Hampshire	1,113,915	.45	2 (1.95)	.46	556,958	-2.78
New Jersey	7,748,634	3.11	13 (13.54)	2.99	596,049	3.96
New Mexico	1,521,779	.61	3 (2.66)	.69	507,260	-12.85
New York	18,044,505	7.25	31 (31.52)	7.13	582,081	1.65
North Carolina	6,657,630	2.67	12 (11.63)	2.76	554,803	-3.18
North Dakota	641,364	.26	1 (1.12)	.23	641,364	10.74
Ohio	10,887,325	4.37	19 (19.02)	4.37	573,017	.10
Missouri	5,137,804	2.06	9 (8.97)	2.07	570,867	-.28

TABLE 5. Allocation of 435 House Seats Compared to Each State's Share of the Total Population of the Fifty States and the Amount that Each State's Average Size District Deviates From the National Average—Continued

State	Population		Seats		Average size district	Percent above or below national average
	1990 apportionment pop.	Percent share of total	House seats (quota) ^a	Percent share of total		
Oklahoma	3,157,604	1.27	6 (5.52)	1.38	526,267	-8.78
Oregon	2,853,733	1.15	5 (4.98)	1.15	570,747	-.30
Pennsylvania	11,924,710	4.79	21 (20.83)	4.83	567,843	-.81
Rhode Island	1,005,984	.40	2 (1.76)	.46	502,992	-13.81
South Carolina	3,505,707	1.41	6 (6.12)	1.38	584,285	2.02
South Dakota	699,999	.28	1 (1.22)	.23	699,999	18.22
Tennessee	4,896,641	1.97	9 (8.55)	2.07	544,071	-5.22
Texas	17,059,805	6.85	30 (29.80)	6.90	568,660	-.67
Utah	1,727,784	.69	3 (3.02)	.69	575,928	.60
Vermont	564,964	.23	1 (.99)	.23	564,964	-1.33
Virginia	6,216,568	2.50	11 (10.86)	2.53	565,143	-1.30
Washington	4,887,941	1.96	9 (8.54)	2.07	543,105	-5.41
West Virginia	1,801,625	.72	3 (3.15)	.69	600,542	4.68
Wisconsin	4,906,745	1.97	9 (2.97)	2.07	545,194	-5.00
Wyoming	455,975	.18	1 (.80)	.23	455,975	-25.55
Fifty States:	249,022,783		435		572,466	

^aThe House seat quota is calculated by dividing the national average size congressional district in 1990 of 572,466 into each State's apportionment population.

Table 5 illustrates that with a 435 seat House, when individual States' proportional shares of the total population are compared with their corresponding shares of the House, the differences appear to be trivial—ranging from -.11 (Washington, Oklahoma, and Mississippi) to +.12 (Massachusetts, New Jersey, and New York). If these differences are expressed proportionally, however, they assume greater importance—from -26 percent (Wyoming) to +29 percent (Montana). Overall, 347,690 persons separate the smallest congressional district (Wyoming at 455,965) from the largest (Montana at 803,655).

Even increasing the House size to 489 does little to change these figures. When the share of House figures are compared to the total population share numbers, the differences again appear trivial—ranging from -.11 (Iowa) to +.11

(Connecticut). The proportional differences are -27 percent (Montana) to +27 percent (South Dakota), with an 298,171 overall range separating smallest congressional district (Montana at 401,828) from the largest (South Dakota at 699,999).

Finding the best ways of minimizing these differences has long puzzled the Congress.

Changing the Apportionment Formula

The means by which the seats in the House are allocated among the States has been controversial from the beginning of the Republic. During the constitutional convention the decision to apportion seats among the States according to each State's population was part of the "Great Compromise" leading to approving the Constitution. An apportionment bill to enact a system devised by Alexander Hamilton was the first bill vetoed by George Washington.¹¹ Throughout the 19th century, and continuing into of the 20th, the manner of how allocations would be done was subject to congressional debate after each census. Finally in 1941, after 150 years of scrutiny, Congress accepted the "method of equal proportions" as the formula for apportioning House seats. This method (sometimes called the Hill or Huntington method) was adopted by 55 Stat 761 in November 1941. This law shifted a seat that had been allocated in January 1941 to Michigan, (from Michigan to Arkansas).

By enacting the equal proportions formula, the Congress did not end the controversy about the most appropriate method to allocate seats in the House. The main dispute is whether the current formula favors small States. A hearing was held on the topic before the House Subcommittee on the Census in 1981, but no further action was taken.¹² In 1982, two mathematicians, M.L. Balinski and H.P. Young, concluded that if "the intent is to eliminate any systematic advantage to either the small [State] or the large, then only one method, first proposed by Daniel Webster in 1832, will do."¹³ This method, called the Webster method by Balinski and Young, is also referred to as the major fractions method.

The equal proportions formula had been endorsed in a 1929 report of the National Academy of Sciences prepared at the request of Speaker Longworth.

¹¹ M.L. Balinski and H.P. Young. *Fair Representation*. Yale University Press, New Haven and London. 1982, p. 21.

¹² U.S. Congress. House. Committee on Post Office and Civil Service. Subcommittee on Census and Population. *Census Activities and the Decennial Census*. Hearings, June 11, 1981. 97th Cong., 1st Sess. Washington, U.S. Govt. Print. Off., 1981.

¹³ *Ibid.*, p. 4.

The Academy concluded that "the method of equal proportions is preferred by the committee because it satisfies . . . [certain tests], and because it occupies mathematically a neutral position with respect to emphasis on larger and smaller States."¹⁴ Balinski's and Young's assessments of the major fractions method, and the National Academy's endorsement of equal proportions are obviously at odds. The differences partly reflect policy judgments, but in other respects the disagreement is explained by differing analytical techniques.¹⁵

Paradoxes and the Hamilton-Vinton Method

Why is there a controversy? Why not apportion the House the intuitive way by dividing each State's population by the national average size district (572,466 in 1990) and give each State its "quota" (rounding up at fractional remainders of .5 and above, and down for remainders less than .5). The problem with this proposal is that the House size would fluctuate around 435 seats. In some decades the House might include 435 seats, in others it might either be under or over the legal limit. In 1990, this method would result in a 438 seat House. One solution to this problem of too few or too many seats would be to divide each State's population by the national average size district, but instead of rounding at the .5 point, each State would receive the whole number of seats it would be entitled to after the division (except States entitled to less than one seat would receive one regardless). The fractional remainders would be ranked in order from largest to smallest. Seats would be assigned in rank order until 435 were allocated (see Table 6). If this system had been used in 1990, Massachusetts and New Jersey each would have retained seats that they lost, and Oklahoma and Mississippi each would have lost a seat.

This apportionment method was devised by Alexander Hamilton and later associated with Samuel Vinton. The Hamilton-Vinton method was mandated by law as the apportionment formula for the House from 1850 to 1900,¹⁶ but it was never strictly followed because changes were made in the

¹⁴ U.S. Congress. House. Committee on Post Office and Civil Service. Subcommittee on Census and Statistics. *The Decennial Population Census and Congressional Apportionment*. Report No. 91-1314, 91st Cong., 1st Sess., July 20, 1970. Washington, U.S. Govt. Print. Off., 1970. p. 21.

¹⁵ For a fuller discussion of these issues see: U.S. Library of Congress Congressional Research Service. *Apportioning Seats in the House of Representatives: The Method of Equal Proportions*. Report 88-143 GOV, by David C. Huckabee. Washington, 1988.

¹⁶ Laurence F. Schmeckebier. *Congressional Apportionment*. The Brookings Institution, Washington, 1941, p. 73.

apportionments that were not consistent with the method.¹⁷ The Hamilton-Vinton method has simplicity in its favor, but its downfall was the *Alabama paradox*. Although the phenomenon had been observed previously, the "paradox" became an issue after the 1880 census when C.W. Seaton, Chief Clerk of the Census Office wrote the Congress on October 25, 1881, stating:

While making these calculations I met with the so-called "Alabama" paradox where Alabama was allotted 8 Representatives out of a total of 299, receiving but 7 when the total became 300.¹⁸

Alabama lost its 8th seat when the House size was increased because of the vagaries of fractional remainders. With 299 seats Alabama's quota was 7.646 seats. It was allocated 8 seats based on this quota, but it was on the dividing point (see the Massachusetts example in table 6 below). When the House was increased in size to 300, Alabama's quota increased to 7.671, but Illinois and Texas now had larger fractional remainders than Alabama and they got extra seats, but the House had only increased in size by one seat. Thus, Alabama lost a seat.¹⁹ This property of the Hamilton-Vinton method became a big enough issue that the formula was changed in 1911.

One could argue that the Alabama paradox should not be an important consideration in apportionments since the House size was fixed in size at 435, but the Hamilton-Vinton method is subject to other anomalies. Hamilton-Vinton is also subject to the *population paradox* and the *new States paradox*.

The population paradox occurs when a State that grows at a greater percentage rate than another has to give up a seat to the slower growing State. The new States paradox works in much the same way—at the next apportionment after a new State enters the Union the addition of the additional seats for the new State may result in seat shifts among States that otherwise would not have happened. Finding a formula that avoided the paradoxes was the goal when the Congress adopted a new method when the apportionment law was changed in 1911.

¹⁷ Balinski and Young, p. 37.

¹⁸ Ibid., p. 38.

¹⁹ Ibid., p. 39.

TABLE 6. Apportioning the House by Simple Rounding and Ranked Fractional Remainders (Hamilton-Vinton)

	"Quota" (State Pop. divided by 435)	Whole number of seats assigned	Rank of fractional remainders	Hamilton- Vinton allocation of seats	Simple rounding allocation of seats
Oregon	4.98	4.00	.98498	5.00	5.00
Missouri	8.97	8.00	.97486	9.00	9.00
Hawaii	1.95	1.00	.94819	2.00	2.00
New Hampshire	1.95	1.00	.94582	2.00	2.00
Iowa	4.87	4.00	.86915	5.00	5.00
Virginia	10.86	10.00	.85928	11.00	11.00
Pennsylvania	20.83	20.00	.83042	21.00	21.00
Texas	29.80	29.00	.80055	30.00	30.00
Colorado	5.78	5.00	.77835	6.00	6.00
Nebraska	2.77	2.00	.76805	3.00	3.00
Idaho	1.77	1.00	.76777	2.00	2.00
Rhode Island	1.76	1.00	.75728	2.00	2.00
Connecticut	5.76	5.00	.75697	6.00	6.00
Indiana	9.72	9.00	.71975	10.00	10.00
Florida	22.71	22.00	.71464	23.00	23.00
Minnesota	7.66	7.00	.66339	8.00	8.00
New Mexico	2.66	2.00	.65829	3.00	3.00
North Carolina	11.63	11.00	.62974	12.00	12.00
Wisconsin	8.57	8.00	.57124	9.00	9.00
Tennessee	8.55	8.00	.55359	9.00	9.00
Washington	8.54	8.00	.53839	9.00	9.00
New Jersey	13.54	13.00	.53553	14.00	14.00
Massachusetts	10.53	10.00	.53172	11.00	11.00
<i>Last State rounded up a seat with a Hamilton-Vinton apportionment</i>					
New York	31.52	31.00	.52065	31.00	32.00
Mississippi	4.52	4.00	.51807	4.00	5.00
Oklahoma	5.52	5.00	.51579	5.00	6.00
<i>Last State rounded up a seat with by simple rounding</i>					
Kentucky	6.46	6.00	.46146	6.00	6.00
Arizona	6.42	6.00	.42481	6.00	6.00
Montana	1.40	1.00	.40385	1.00	1.00
Louisiana	7.40	7.00	.40343	7.00	7.00
Maryland	8.38	8.00	.38237	8.00	8.00
Georgia	11.37	11.00	.36909	11.00	11.00
Kansas	4.34	4.00	.34192	4.00	4.00
Michigan	16.30	16.00	.29578	16.00	16.00
South Dakota	1.22	1.00	.22278	1.00	1.00
Delaware	1.17	1.00	.16810	1.00	1.00
Maine	2.15	2.00	.15423	2.00	2.00
West Virginia	3.15	3.00	.14713	3.00	3.00

TABLE 6. Apportioning the House by Simple Rounding and Ranked Fractional Remainders (Hamilton-Vinton)—Continued

	"Quota" (State Pop. divided by 435)	Whole number of seats assigned	Rank of fractional remainders	Hamilton- Vinton allocation of seats	Simple rounding allocation of seats
Arkansas	4.13	4.00	.12643	4.00	4.00
California	52.12	52.00	.12404	52.00	52.00
South Carolina	6.12	6.00	.12387	6.00	6.00
North Dakota	1.12	1.00	.12035	1.00	1.00
Nevada	2.11	2.00	.10694	2.00	2.00
Alabama	7.10	7.00	.09668	7.00	7.00
Illinois	20.03	20.00	.03032	20.00	20.00
Ohio	19.02	19.00	.01829	19.00	19.00
Utah	3.02	3.00	.01814	3.00	3.00
Vermont	.99	1.00	-.01310	1.00	1.00
Alaska	.96	1.00	-.03584	1.00	1.00
Wyoming	.80	1.00	-.20349	1.00	1.00
Total allocation:		412.00		435.00	438.00

Data calculated by CRS.

Avoiding the Paradoxes With Major Fractions

The major fractions method (used from 1911 until 1940) was a departure from methods previously considered because the divisor used to derive the apportionment was an artificial construct. Major fractions works much like the simple rounding method illustrated in table 6. It allocates seats by rounding up to the next seat when a State has a remainder of .5 and above. In order to work around the problem of a floating House size, major fractions uses a *sliding divisor*. First a trial divisor is found by dividing the population of the 50 States by 435. If 435 seats are allocated by using this trial figure (the national "ideal size" district rounded at the midpoint between each number) then no alteration of the divisor is necessary. But if too many seats are allocated (as would happen in 1990), the divisor is made larger (it *slides* up), if too few seats are apportioned, the divisor becomes smaller (it *slides* down). In 1990, if major fractions had been used rather than the current method, Massachusetts would have retained its 11th seat, and Oklahoma would have lost its 6th seat. The divisor used to apportion the seats in 1990 would have been any number from 574,110 to 574,195 (between 1,644 and 1,729 over the 1990 national average size district). One significant advantage of the major fractions as compared to simple rounding or the Hamilton-Vinton method is that it avoids the various paradoxes that plague the other two. Equal proportions (the current formula) also avoids the paradoxes.

TABLE 7. Population Needed to Gain or Lose a Seat Using Major Fractions Apportionment Method (1990 Census Apportionment Counts)

Sequence	State	State apportionment population	Seat	Priority value	Pop. needed to gain or lose a seat	Percent of State pop.
420	NY	18,044,505	31	591623.11	-534156	2.96
421	CA	29,830,250	51	590876.23	-846449	2.84
422	OH	10,887,325	19	588504.05	-266293	2.45
423	IL	11,466,682	20	588034.97	-271541	2.37
424	IN	5,564,228	10	585708.21	-110185	1.98
425	MN	4,387,029	8	584937.20	-81205	1.85
426	PA	11,924,710	21	581693.17	-155459	1.30
427	CA	29,830,250	52	579402.91	-272512	.91
428	NC	6,657,630	12	578924.34	-55367	.83
429	TX	17,059,805	30	578298.47	-123565	.72
430	FL	13,003,362	23	577927.20	-85891	.66
431	WI	4,906,745	9	577264.11	-26812	.55
432	TN	4,896,641	9	576075.41	-16708	.34
433	WA	4,887,941	9	575051.88	-8008	.16
434	MS	2,586,443	5	574765.11	-2949	.11
435	MA	6,029,051	11	574195.33	-898	.01
436	OK	3,157,604	6	574109.81	470	.01
437	NJ	7,748,634	14	573972.88	3003	.04
438	NY	18,044,505	32	572841.42	42648	.24
439	KY	3,698,969	7	569072.15	33301	.90
440	CA	29,830,250	53	568366.66	305913	1.03
441	GA	6,508,419	12	565949.47	94827	1.46
442	AZ	3,667,239	7	565843.84	54126	1.48
443	MI	9,328,784	17	565380.84	145439	1.56
444	LA	4,238,216	8	565095.46	68249	1.61
445	MD	4,798,622	9	564543.76	82038	1.71
446	IL	11,466,682	21	559350.34	304322	2.65
447	TX	17,059,805	31	559337.86	453153	2.66
448	OH	10,887,325	20	558324.35	309484	2.84
449	CA	29,830,250	54	557742.99	879935	2.95
450	NY	18,044,505	33	555215.53	616844	3.42

Data calculated by CRS on the Library of Congress' mainframe computer.

When major fractions is compared to the equal proportions method, one finds that major fractions minimizes the differences in representation in the House when those differences are expressed as each resident's share of a Representative on an *absolute* basis. Equal proportions minimizes the differences when they are compared on a *proportional* basis. Using Massachusetts and Oklahoma as the example in 1990, the first step in making

comparisons is to standardize the figures in some fashion. One way of doing this is to express each State's representation in the House as the number of Representatives per million residents that are assigned to each State.²⁰ When 11 seats are assigned to Massachusetts, and 5 are given to Oklahoma (using major fractions), Massachusetts has 1.824 Representatives per million persons and Oklahoma has 1.583 Representatives per million. The absolute difference between these numbers is .241 and the proportional difference between the two State's Representatives per million is 15.22 percent. When 10 seats are assigned to Massachusetts and 6 are assigned to Oklahoma (using equal proportions), Massachusetts has 1.659 Representatives per million and Oklahoma has 1.9 Representatives per million. The absolute difference between these numbers is .243 and the proportional difference is 14.53 percent.

Major fractions minimizes absolute differences, so in 1990 when assigning seats to Massachusetts and Oklahoma, they receive 11 and 5 seats respectively because the absolute difference (.241 Representatives per million) is smaller at 11 and 5 than it would be at 10 and 6 (.243). Equal proportions minimizes differences on a proportional basis, so it assigns 10 seats to Massachusetts and 6 to Oklahoma because the proportional difference between a 10 and 6 allocation (14.53 percent) is smaller than would occur with an 11 and 5 assignment (15.22 percent).

The Congress chose to minimize proportional differences when it selected the equal proportions method to allocate House seats in 1941.

Changing the Rounding Point With Equal Proportions

The only operational difference between a major fractions and the equal proportions apportionment (the method currently in use), is where the rounding occurs. Rather than rounding at the *arithmetic mean* that is always the midpoint (.5) between numbers, equal proportions rounds at the *geometric mean*. (The geometric mean is the square root of the multiplication of two numbers.) The equal proportions rounding point between 1 and 2, for example, is 1.414 (the square root of 2) rather than 1.5. The rounding point between 10 and 11 is the square root of 110 or 10.487. This property of the geometric mean (that larger numbers produce higher rounding points) is the intuitive basis for challenges to the equal proportions formula. The argument is that the equal proportions formula may not fairly allocate seats because larger States have to overcome ever increasing rounding thresholds to gain additional seats. This can be illustrated in the extreme by the examples of California and Montana in 1990. California received 52 seats based on its 1990 apportionment population, and Montana received just one seat. The rounding

²⁰ Representatives per million was computed by dividing the number of representatives assigned to the State by the State's population (which gives the number of representatives per person) and then multiplying the resulting dividend by 1,000,000.

point that California would need to equal or exceed to gain a 53rd seat in the House is 53.498 as contrasted to Montana's threshold of 1.414 to retain its 2nd seat.

The House has only been reapportioned twenty times since 1790. The equal proportions method has been used in five apportionments, and major fractions in two. Seven apportionments do not provide enough historical information to enable policy makers to generalize about the impact of differing methods. Computers, however can simulate reality by using random numbers to test many different hypothetical situations. These techniques (such as the "Monte Carlo" simulation method) are a useful way of observing the behavior of systems when experience does provide enough information to generalize about them.

Apportioning the House can be viewed as a system with four main variables: (1) the size of the House; (2) the population of the States; (3) the number of States; and (4) the method of apportionment. A 1984 exercise prepared for CRS involving 1,000 simulated apportionments examined the results when two of these variables were changed—the method and the State populations. Major fractions, equal proportions, and the Hamilton-Vinton methods were tested (along with several other alternatives). There was no discernible pattern by size of State in the results of the Hamilton-Vinton or major fractions apportionments.²¹ The equal proportions formula was found to have "a definite tendency to give large States less than their fair shares [of seats] and the small States more."²²

Adhering to quota, however, is not the only goal that the Congress endorsed when it adopted the equal proportions formula in 1941. The concept of minimizing *proportional* differences of district sizes of among States was deemed to be important as well, and no method does this as well as equal proportions.

CONCLUSION

If history proves to be prologue, in the absence of an adjustment for miscounts of persons the likelihood of change in the official apportionment allocations set out in this report is slim.

²¹ H.P. Young and M.L. Balinski. *Evaluation of Apportion Methods*. Prepared under a contract for the Congressional Research Service of the Library of Congress. (Contract No. CRS84-15) Washington, 1984.

A modified version of Hamilton-Vinton was evaluated (which set all States with quotas less than one seat to one) because of the constitutional requirement that each State must receive at least one House seat.

²² *Ibid.*, p. 8.

There has been no increase in the House size since immediately after the 1910 census (with the brief temporary exception when Alaska and Hawaii were admitted). Advocates of changing the apportionment formula will face the daunting task of persuading the Congress and the President of the need to alter a method that has been relatively noncontroversial since it was adopted. Further obstacles include the difficulty of debating this technical matter, and adequately explaining the problems and benefits associated with the alternative methods.

One should not assume, however, that the matter of the best House apportionment method has been settled. Each alternative has its strengths and weaknesses. Whether the goal is simplicity (simple rounding or Hamilton-Vinton), or minimizing absolute differences (major fractions) or proportional differences (equal proportions), one can argue that the choice of a method is a policy decision rather than one to be left strictly to mathematicians.

Appendix 1 shows assignments of House seats based on the census apportionment counts. The appendix provides the full listing that formed the basis for Table 2.

APPENDIX 1. Apportionment Priority List Based on 1990 Census
Apportionment Counts

Sequence	State	Seat	Priority value
<i>The first 50 seats are assigned one each to every State by the Constitutional requirement that each State must have at least one seat.</i>			
51	California	2	21,099,535.65
52	New York	2	12,759,391.63
53	California	3	12,181,821.46
54	Texas	2	12,063,103.59
55	Florida	2	9,194,765.29
56	California	4	8,613,849.35
57	Pennsylvania	2	8,432,043.16
58	Illinois	2	8,108,168.46
59	Ohio	2	7,698,501.20
60	New York	3	7,366,637.51
61	Texas	3	6,964,635.46
62	California	5	6,672,258.17
63	Michigan	2	6,596,446.31
64	New Jersey	2	5,479,111.55
65	California	6	5,447,875.79
66	Florida	3	5,308,599.72
67	New York	4	5,208,999.81
68	Texas	4	4,924,741.41
69	Pennsylvania	3	4,868,241.93
70	North Carolina	2	4,707,655.23
71	Illinois	3	4,681,252.81
72	California	7	4,604,295.11
73	Georgia	2	4,602,147.13
74	Ohio	3	4,444,731.33
75	Virginia	2	4,395,777.31
76	Massachusetts	2	4,263,182.77
77	New York	5	4,034,873.39
78	California	8	3,987,436.09
79	Indiana	2	3,934,503.28
80	Texas	5	3,814,687.81
81	Michigan	3	3,808,459.70
82	Florida	4	3,753,747.20
83	Missouri	2	3,632,975.98
84	California	9	3,516,587.79
85	Wisconsin	2	3,469,592.60
86	Tennessee	2	3,462,447.99
87	Washington	2	3,456,296.16
88	Pennsylvania	4	3,442,367.20

See notes at the end of the table.

APPENDIX 1. Apportionment Priority List Based on 1990 Census
Apportionment Counts—Continued

Sequence	State	Seat	Priority value
89	Maryland	2	3,393,138.09
90	Illinois	4	3,310,145.91
91	New York	6	3,294,460.21
92	New Jersey	3	3,163,366.23
93	California	10	3,145,331.61
94	Ohio	4	3,142,899.95
95	Texas	6	3,114,679.44
96	Minnesota	2	3,102,097.90
97	Louisiana	2	2,996,871.22
98	Florida	5	2,907,639.71
99	Alabama	2	2,872,697.61
100	California	11	2,845,059.46
101	New York	7	2,784,326.89
102	North Carolina	3	2,717,965.76
103	Michigan	4	2,692,987.92
104	Pennsylvania	5	2,666,445.82
105	Georgia	3	2,657,050.63
106	Texas	7	2,632,384.41
107	Kentucky	2	2,615,566.01
108	Arizona	2	2,600,728.09
109	California	12	2,597,172.96
110	Illinois	5	2,564,027.67
111	Virginia	3	2,537,902.98
112	South Carolina	2	2,478,909.15
113	Massachusetts	3	2,461,349.49
114	Ohio	5	2,434,479.52
115	New York	8	2,411,297.55
116	California	13	2,389,051.45
117	Florida	6	2,374,077.80
118	Colorado	2	2,339,046.96
119	Connecticut	2	2,330,389.85
120	Texas	8	2,279,711.53
121	Indiana	3	2,271,586.31
122	New Jersey	4	2,236,837.92
123	Oklahoma	2	2,232,763.16
124	California	14	2,211,830.60
125	Pennsylvania	6	2,177,143.82
126	New York	9	2,126,564.37
127	Missouri	3	2,097,499.46
128	Illinois	6	2,093,519.75
129	Michigan	5	2,085,979.21
130	California	15	2,059,102.28
131	Oregon	2	2,017,893.92

See notes at the end of the table.

APPENDIX 1. Apportionment Priority List Based on 1990 Census
Apportionment Counts—Continued

Sequence	State	Seat	Priority value
132	Texas	9	2,010,516.41
133	Florida	7	2,006,461.82
134	Wisconsin	3	2,003,170.03
135	Tennessee	3	1,999,045.09
136	Washington	3	1,995,493.33
137	Ohio	6	1,987,744.13
138	Iowa	2	1,971,006.37
139	Maryland	3	1,959,029.01
140	California	16	1,926,114.17
141	North Carolina	4	1,921,892.20
142	New York	10	1,902,056.92
143	Georgia	4	1,878,818.69
144	Pennsylvania	7	1,840,022.25
145	Mississippi	2	1,828,891.35
146	California	17	1,809,270.25
147	Texas	10	1,798,260.48
148	Virginia	4	1,794,568.57
149	Minnesota	3	1,790,996.89
150	Illinois	7	1,769,347.01
151	Kansas	2	1,757,584.58
152	Massachusetts	4	1,740,437.07
153	Florida	8	1,737,646.72
154	New Jersey	5	1,732,646.98
155	Louisiana	3	1,730,244.24
156	New York	11	1,720,475.20
157	California	18	1,705,796.31
158	Michigan	6	1,703,194.83
159	Ohio	7	1,679,950.30
160	Arkansas	2	1,670,355.18
161	Alabama	3	1,658,552.58
162	Texas	11	1,626,587.79
163	California	19	1,613,521.84
164	Indiana	4	1,606,254.23
165	Pennsylvania	8	1,593,505.83
166	New York	12	1,570,572.33
167	Florida	9	1,532,460.23
168	Illinois	8	1,532,299.29
169	California	20	1,530,721.18
170	Kentucky	3	1,510,097.60
171	Arizona	3	1,501,530.92
172	North Carolina	5	1,488,691.10
173	Texas	12	1,484,865.21
174	Missouri	4	1,483,156.23

See notes at the end of the table.

APPENDIX 1. Apportionment Priority List Based on 1990 Census
Apportionment Counts—Continued

Sequence	State	Seat	Priority value
175	California	21	1,456,006.30
176	Georgia	5	1,455,326.51
177	Ohio	8	1,454,879.48
178	New York	13	1,444,716.30
179	Michigan	7	1,439,462.27
180	South Carolina	3	1,431,198.73
181	Wisconsin	4	1,416,455.24
182	New Jersey	6	1,414,700.28
183	Tennessee	4	1,413,538.47
184	Washington	4	1,411,027.00
185	Pennsylvania	9	1,405,339.93
186	Virginia	5	1,390,066.66
187	California	22	1,388,247.47
188	Maryland	4	1,385,242.82
189	Florida	10	1,370,674.05
190	Texas	13	1,365,877.22
191	Illinois	9	1,351,360.84
192	Colorado	3	1,350,449.27
193	Massachusetts	5	1,348,136.59
194	Connecticut	3	1,345,451.08
195	New York	14	1,337,546.63
196	California	23	1,326,516.39
197	Oklahoma	3	1,289,086.29
198	Ohio	9	1,283,082.99
199	West Virginia	2	1,273,941.23
200	California	24	1,270,042.73
201	Minnesota	4	1,266,426.16
202	Texas	14	1,264,555.87
203	Pennsylvania	10	1,256,974.20
204	Michigan	8	1,246,610.75
205	New York	15	1,245,188.18
206	Indiana	5	1,244,199.02
207	Florida	11	1,239,821.31
208	Louisiana	4	1,223,467.55
209	Utah	2	1,221,727.76
210	California	25	1,218,182.21
211	North Carolina	6	1,215,511.15
212	Illinois	10	1,208,693.83
213	New Jersey	7	1,195,639.89
214	Georgia	6	1,188,269.08
215	Texas	15	1,177,237.47
216	Alabama	4	1,172,773.89
217	California	26	1,170,391.58

See notes at the end of the table.

APPENDIX 1. Apportionment Priority List Based on 1990 Census
Apportionment Counts—Continued

Sequence	State	Seat	Priority value
218	Oregon	3	1,165,031.49
219	New York	16	1,164,767.10
220	Missouri	5	1,148,847.73
221	Ohio	10	1,147,624.27
222	Iowa	3	1,137,960.95
223	Pennsylvania	11	1,136,975.93
224	Virginia	6	1,134,984.63
225	Florida	12	1,131,797.21
226	California	27	1,126,209.87
227	Nebraska	2	1,120,493.40
228	Texas	16	1,101,205.03
229	Massachusetts	6	1,100,748.87
230	Michigan	9	1,099,407.25
231	Wisconsin	5	1,097,181.37
232	Tennessee	5	1,094,922.05
233	New York	17	1,094,108.80
234	Illinois	11	1,093,304.69
235	Washington	5	1,092,976.67
236	California	28	1,085,243.01
237	New Mexico	2	1,076,060.23
238	Maryland	5	1,073,004.34
239	Kentucky	4	1,067,800.35
240	Arizona	4	1,061,742.79
241	Mississippi	3	1,055,910.81
242	California	29	1,047,152.30
243	Florida	13	1,041,101.93
244	Ohio	11	1,038,065.20
245	Pennsylvania	12	1,037,912.62
246	New Jersey	8	1,035,454.40
247	Texas	17	1,034,402.59
248	New York	18	1,031,535.64
249	North Carolina	7	1,027,294.36
250	Indiana	6	1,015,884.21
251	Kansas	3	1,014,741.83
252	South Carolina	4	1,012,010.42
253	California	30	1,011,645.28
254	Georgia	7	1,004,270.60
255	Illinois	12	998,046.41
256	Michigan	10	983,339.70
257	Minnesota	5	980,969.36
258	California	31	978,467.51
259	New York	19	975,735.07
260	Texas	18	975,244.09

See notes at the end of the table.

APPENDIX 1. Apportionment Priority List Based on 1990 Census
Apportionment Counts—Continued

Sequence	State	Seat	Priority value
261	Arkansas	3	964,379.92
262	Florida	14	963,872.55
263	Virginia	7	959,237.03
264	Colorado	4	954,911.92
265	Pennsylvania	13	954,740.67
266	Connecticut	4	951,377.67
267	Louisiana	5	947,693.77
268	Ohio	12	947,619.86
269	California	32	947,397.10
270	Missouri	6	938,030.21
271	Massachusetts	7	930,302.53
272	New York	20	925,663.55
273	Texas	19	922,488.60
274	California	33	918,239.42
275	Illinois	13	918,069.09
276	New Jersey	9	913,184.87
277	Oklahoma	4	911,521.74
278	Alabama	5	908,426.63
279	Florida	15	897,316.53
280	Wisconsin	6	895,844.81
281	Tennessee	6	894,000.08
282	Washington	6	892,411.68
283	California	34	890,823.07
284	North Carolina	8	889,662.91
285	Michigan	11	889,464.22
286	Pennsylvania	14	883,917.61
287	New York	21	880,481.68
288	Maryland	6	876,104.34
289	Texas	20	875,149.50
290	Maine	2	872,020.33
291	Ohio	13	871,683.42
292	Georgia	8	869,723.76
293	California	35	864,996.63
294	Indiana	7	858,578.81
295	Nevada	2	852,878.24
296	Illinois	14	849,966.34
297	California	36	840,625.60
298	New York	22	839,506.30
299	Florida	16	839,362.91
300	Texas	21	832,433.24
301	Virginia	8	830,723.54
302	Kentucky	5	827,114.49
303	Oregon	4	823,801.74

See notes at the end of the table.

APPENDIX 1. Apportionment Priority List Based on 1990 Census
Apportionment Counts—Continued

Sequence	State	Seat	Priority value
304	Pennsylvania	15	822,882.53
305	Arizona	5	822,422.32
306	California	37	817,590.39
307	New Jersey	10	816,777.34
308	Michigan	12	811,966.30
309	Ohio	14	807,021.57
310	Massachusetts	8	805,665.54
311	Iowa	4	804,659.98
312	New York	23	802,176.05
313	Minnesota	6	800,958.10
314	California	38	795,784.05
315	Texas	22	793,693.91
316	Missouri	7	792,780.17
317	Illinois	15	791,275.62
318	Hawaii	2	788,617.79
319	Florida	17	788,444.61
320	New Hampshire	2	787,656.83
321	North Carolina	9	784,608.87
322	South Carolina	5	783,899.80
323	California	39	775,110.76
324	Louisiana	6	773,788.69
325	Pennsylvania	16	769,736.26
326	New York	24	768,025.08
327	Georgia	9	767,024.19
328	Texas	23	758,400.80
329	Wisconsin	7	757,127.00
330	Tennessee	7	755,567.92
331	California	40	755,484.48
332	Washington	7	754,225.48
333	Ohio	15	751,296.22
334	Michigan	13	746,900.30
335	Mississippi	4	746,641.76
336	Indiana	8	743,550.98
337	Florida	18	743,352.69
338	Alabama	6	741,727.21
339	Maryland	7	740,443.26
340	Illinois	16	740,170.70
341	Colorado	5	739,671.50
342	New Jersey	11	738,802.90
343	Connecticut	5	736,933.88
344	California	41	736,827.74
345	New York	25	736,663.79
346	West Virginia	3	735,510.24

See notes at the end of the table.

APPENDIX 1. Apportionment Priority List Based on 1990 Census
Apportionment Counts—Continued

Sequence	State	Seat	Priority value
347	Virginia	9	732,629.24
348	Texas	24	726,113.47
349	Pennsylvania	17	723,041.73
350	California	42	719,070.17
351	Kansas	4	717,530.90
352	Idaho	2	715,582.15
353	Rhode Island	2	711,338.09
354	Massachusetts	9	710,530.16
355	New York	26	707,763.66
356	Oklahoma	5	706,061.61
357	Utah	3	705,364.78
358	Florida	19	703,141.28
359	Ohio	16	702,773.39
360	California	43	702,148.53
361	North Carolina	10	701,775.48
362	Texas	25	696,463.58
363	Illinois	17	695,269.70
364	Michigan	14	691,494.92
365	Missouri	8	686,567.69
366	Georgia	10	686,047.27
367	California	44	686,005.00
368	Arkansas	4	681,919.64
369	Pennsylvania	18	681,690.26
370	New York	27	681,045.92
371	Minnesota	7	676,933.10
372	Kentucky	6	675,336.13
373	New Jersey	12	674,431.92
374	Arizona	6	671,504.99
375	California	45	670,587.24
376	Texas	26	669,140.55
377	Florida	20	667,058.37
378	Ohio	17	660,141.03
379	New York	28	656,272.29
380	California	46	655,847.22
381	Indiana	9	655,750.27
382	Wisconsin	8	655,691.14
383	Illinois	18	655,506.55
384	Virginia	10	655,283.49
385	Tennessee	8	654,340.94
386	Louisiana	7	653,970.76
387	Washington	8	653,178.36
388	Nebraska	3	646,917.11
389	Pennsylvania	19	644,814.46

See notes at the end of the table.

APPENDIX 1. Apportionment Priority List Based on 1990 Census
Apportionment Counts—Continued

Sequence	State	Seat	Priority value
390	Texas	27	643,880.82
391	Michigan	15	643,746.75
392	California	47	641,741.37
393	Maryland	8	641,242.61
394	South Carolina	6	640,051.48
395	Oregon	5	638,114.00
396	Massachusetts	10	635,517.47
397	North Carolina	11	634,779.80
398	Florida	21	634,499.09
399	New York	29	633,237.93
400	California	48	628,229.44
401	Alabama	7	626,873.87
402	Iowa	5	623,286.86
403	Ohio	18	622,386.91
404	New Mexico	3	621,263.60
405	Georgia	11	620,553.10
406	Texas	28	620,459.09
407	New Jersey	13	620,387.08
408	Illinois	19	620,047.14
409	California	49	615,274.87
410	New York	30	611,765.99
411	Pennsylvania	20	611,724.70
412	Missouri	9	605,495.74
413	Florida	22	604,971.11
414	Colorado	6	603,939.23
415	California	50	602,843.86
416	Michigan	16	602,170.06
417	Connecticut	6	601,703.97
418	Texas	29	598,681.74
419	Virginia	11	592,726.21
420	New York	31	591,702.60
421	California	51	590,905.18
422	Ohio	19	588,719.10
423	Illinois	20	588,228.36
424	Indiana	10	586,520.84
425	Minnesota	8	586,241.20
426	Pennsylvania	21	581,866.26
427	North Carolina	12	579,472.22
428	California	52	579,430.15
429	Texas	30	578,381.53
430	Mississippi	5	578,346.15
431	Wisconsin	9	578,265.19
432	Florida	23	578,069.92

See notes at the end of the table.

APPENDIX 1. Apportionment Priority List Based on 1990 Census
Apportionment Counts—Continued

Sequence	State	Seat	Priority value
433	Tennessee	9	577,074.42
434	Oklahoma	6	576,496.87
435	Washington	9	576,049.11
<i>The 435th seat is the last one provided by law</i>			
436	Massachusetts	11	574,847.17
437	New Jersey	14	574,366.50
438	New York	32	572,913.58
439	Kentucky	7	570,763.16
440	California	53	568,392.42
441	Montana	2	568,269.89
442	Arizona	7	567,525.26
443	Georgia	12	566,485.07
444	Louisiana	8	566,355.23
445	Michigan	17	565,640.60
446	Maryland	9	565,522.77
447	Illinois	21	559,516.78
448	Texas	31	559,413.02
449	Ohio	20	558,507.97
450	California	54	557,767.31
451	Kansas	5	555,796.97
452	New York	33	555,281.24
453	Pennsylvania	22	554,787.68
454	Florida	24	553,459.80
455	California	55	547,532.16
456	Alabama	8	542,888.63
457	Texas	32	541,649.33
458	Missouri	10	541,571.83
459	Virginia	12	541,082.71
460	South Carolina	7	540,942.20
461	New York	34	538,701.92
462	California	56	537,665.94
463	New Jersey	15	534,706.13
464	Illinois	22	533,478.29
465	Michigan	18	533,291.06
466	North Carolina	13	533,036.87
467	Ohio	21	531,247.06
468	Florida	25	530,860.00
469	Indiana	11	530,528.06
470	Pennsylvania	23	530,117.99
471	Arkansas	5	528,212.62
472	California	57	528,148.99
473	Texas	33	524,979.20
474	Massachusetts	12	524,761.45

See notes at the end of the table.

APPENDIX 1. Apportionment Priority List Based on 1990 Census
Apportionment Counts—Continued

Sequence	State	Seat	Priority value
475	New York	35	523,084.05
476	Georgia	13	521,090.43
477	Oregon	6	521,017.88
478	West Virginia	4	520,084.33
479	California	58	518,963.07
480	Wisconsin	10	517,216.08
481	Minnesota	9	517,016.09
482	Tennessee	10	516,151.03
483	Washington	10	515,233.97
484	Colorado	7	510,421.77
485	California	59	510,091.18
486	Florida	26	510,033.77
487	Illinois	23	509,756.16
488	Texas	34	509,304.61
489	Iowa	6	508,911.57
490	Connecticut	7	508,532.64
491	New York	36	508,346.32
492	Pennsylvania	24	507,549.32
493	Ohio	22	506,524.17
494	Maryland	10	505,818.92
495	Michigan	19	504,442.86
496	Maine	3	503,461.12
497	California	60	501,517.64
498	New Jersey	16	500,171.88
499	Louisiana	9	499,478.32
500	Utah	4	498,768.26

The 1990 census apportionment numbers that formed the basis for the calculation of this priority table are from: Barringer, Felicity. Census Bureau Places Population at 249.6 Million. *New York Times*, Dec. 27, 1990, p. A1.